In the Matter Of:

KELLI DENISE GOODE vs

CITY OF SOUTHAVEN

3:17-cv-060-DMB-RP

GARY VILKE

December 08, 2017

EXHIBIT 1

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF MISSISSIPPI
OXFORD DIVISION

KELLI DENISE GOODE, INDIVIDUALLY, AND ALSO AS THE PERSONAL REPRESENTATIVE OF TROY CHARLTON GOODE, DECEASED, AND AS MOTHER, NATURAL GUARDIAN, AND NEXT FRIEND OF R.G., A MINOR, AND ALSO ON BEHALF OF ALL SIMILARLY SITUATED PERSON,

Plaintiff,

vs. No. 3:17-cv-060-DMB-RP

THE CITY OF SOUTHAVEN, et al.,

Defendants.

VIDEOTAPED DEPOSITION

OF

GARY VILKE, M.D.

DECEMBER 8, 2017

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The videotaped deposition of GARY VILKE, M.D., is taken on this, the 8th day of December, 2017, on behalf of the Plaintiff, pursuant to notice and consent of counsel, beginning at approximately 8:02 a.m. in the offices of Peterson Reporting Video and Litigation Services, 530 B Street, Suite 350, San Diego, California.

This deposition is taken pursuant to the terms and provisions of the Federal Rules of Civil Procedure.

All forms and formalities are waived.

Objections are reserved, except as to the form of the question, to be disposed of at or before the hearing.

The signature of the witness is waived.

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EXAMINATION INDEX

EXHIBIT INDEX

EXHIBIT INDEX
(CONTINUED)

EXHIBIT INDEX
(CONTINUED)

WHEREUPON, EXHIBIT NO. 1 WAS PREMARKED TO THE TESTIMONY OF THE WITNESS AND IS ATTACHED HERETO.)

THE VIDEOGRAPHER: Good morning. Today's date is December 8, 2017. The time is approximately 8:02 a.m. The location is 530 B Street, Suite 350, San Diego, California 92101. This Case Number is 3:17-cv-060-DMB-RP. The file is in the United States District Court for the Northern District of Mississippi in the case of Kelli Denise Goode versus the City of Southaven, et al.

The deponent today is Dr. Gary Vilke. Counsel and all present please identify yourselves for the record.

MR. EDWARDS: Tim Edwards and Kevin McCormack for Mrs. Goode.

MR. GARRETT: Jim Garrett also for Mrs. Goode.

MR. PHILLIPS: I'm Marty Phillips here for Dr. Oliver along with Ric Gass.

MR. MACAW: Matt Macaw for Southeastern Emergency Physicians, LLC.

MR. HUSKISON: Berkley Huskison telephonically for the Southaven defendants.

THE VIDEOGRAPHER: The court reporter may now swear in or affirm the deponent.

GARY VILKE, M.D.,

Having been first duly sworn, was examined and testified as follows:

EXAMINATION

BY MR. EDWARDS:

Q. Doctor, I am Tim Edwards. Would you state your name please?

A. Gary Michael Vilke.

Q. And, Doctor, you are a resident of San Diego County, California; correct?

A. Yes.

Q. You have been disclosed as an expert by a number of the defendants in this case. Are you aware of that?

A. I know I've worked with counsel for Dr. Oliver as an expert. I'm not sure who else has disclosed me as their expert.

Q. Well, you have been adopted by reference by all of the defendants I believe. Were you aware of that?

A. I can't say I'm specifically aware of it. No.
Q. All right, Doctor. You have given a number of depositions; correct?
A. Yes.
Q. Actually you have testified in defense of police departments who have had in custody in restraint deaths from the East Coast to the West Coast; correct?
A. I have had cases on both coasts. Yes.
Q. And places in between?
A. Correct.
Q. You are the go-to guy in the United States for hogtied deaths; correct?
A. I have done a lot of research in the area and have been asked to testify many times.
Q. For police departments?
A. Police departments have retained me or their counsel. Yes.
Q. Yeah. But not -- you've not testified for any plaintiffs?
A. I think I testified a long time ago for a plaintiff.
Q. Was that before your 1997 study?

A. I believe it was shortly thereafter.
Q. You are not a forensic pathologist, are you?
A. I am not.
Q. And you have been proffered in the case to give an opinion on the cause of death of Troy Goode; correct?
A. Correct.
Q. You've never performed an autopsy?
A. Correct.
Q. Your opinion is that Mr. Goode died of what you term excited delirium syndrome; correct?
A. Cardiac arrest due to excited delirium syndrome because of his LSD use. Yes.
Q. Well, excited delirium syndrome is a controversial concept within the field of medicine; correct?
A. There have been some controversies within the field about that. Yes.
Q. Excited delirium is not uniformly accepted by medical specialties as a valid condition; correct?
A. It's been accepted by specialties that take care of patients in excited delirium. But

you wouldn't expect dermatologists or endocrinologists to recognize what that is.
Q. Has it been accepted by cardiologists?
A. I know cardiologists who have. I don't believe it's ever gone and been requested to be accepted by their national organization.
Q. So the answer is no, the national organization of cardiologists does not recognize excited delirium?
A. That's a question I don't know. I don't know that I've been ever asked to answer that question.
Q. Excited delirium is a concept which is heavily involved, if you will, with the functioning of the heart of people under certain stressors; is that correct?
A. The heart is involved in excited delirium. Yes.
Q. And your opinion is that Mr. Goode died of excited delirium precipitated by LSD use and resulting in cardiac arrest?
A. That's a fair assessment. Yes.
Q. That means his heart gave out?
A. It went into a dysrhythmia and stopped

beating correctly.
Q. His heart gave out; correct?
A. It would be a lay term for it. But the reality is the electrical activity is defective.
Q. Well, you do understand I am a layperson, so I might not use correct medical terms; correct?
A. That's possible. Sure.
Q. All right. You have noted in some of your testimony that you are aware of Dr. DiMaio who was the medical examiner for the County of Bexar, San Antonio, Texas; right?
A. I know he's a medical examiner in Texas. I wasn't sure specifically what area.
Q. He is a board certified forensic pathologist; right?
A. I don't know if he has board certification in there. I know at one point he was.
Q. Forensic pathologists are the ones who determine cause of death through autopsy; right?
A. They're the ones who perform the autopsies and they do perform -- identify cause of death. Yes.

Q. And when a forensic pathologist can't find a cause of death of a person who died under the influence of drugs and in restraints put on by the police, the default position is excited delirium; correct?

A. I have never heard that be a default position.

Q. That's where forensic pathologists who believe in the concept of excited delirium go to with cause of death when they can't find any other when a person in police restraints dies under the influence of a drug?

A. They have to have certain symptoms and criteria that would meet the classification for excited delirium syndrome. They don't have to be in restraints. They don't have to be in police custody. But if the findings and the presentation is consistent with excited delirium syndrome and there is no obvious other source of death like a brain hemorrhage or a blood clot, they often will use that as a diagnosis to identify the cause of death.

Q. And if they find three or more markers of excited delirium in your opinion, is that

sufficient to designate the cause of death as excited delirium?

A. Again, you sort of have to look at the entire picture, the presentation. Typically there's more than three markers. If you're going to identify a specific markers, usually there's, you know, five or so. But there is no identifiable specific number that would define excited delirium. A lot of it is the clinical presentation, the presence of drugs in the system, the way they behave and act, and the lack of other causes of sudden death. If they have sky high potassium levels, then the cause of death is probably hyperkalemic cardiac arrest. But you have to look at the whole picture.

Q. But you do recognize certain markers that indicate excited delirium; right?

A. There are a characteristics that are consistent with the diagnosis of excited delirium syndrome. Yes.

Q. Fair enough, characteristics. You recognize certain characteristics as being indicative of excited delirium?

A. They are looked for, and if they're

present can be consistent with that diagnosis.

Q. Now Dr. DiMaio in San Antonio has written books on excited delirium syndrome, you're aware of that?

A. I know he's written at least one. I'm not sure about several books. He's written on chapters as well.

Q. Dr. DiMaio in his book on excited delirium says that when a forensic pathologist concludes that the cause of death is excited delirium, that's what should go into the autopsy report, specifically death due to excited delirium secondarily struggle or whatever; correct?

A. You know, I haven't read his book in a long time. So I couldn't say exactly what he put in there.

Q. So you don't know?

A. I don't know what he said in that book, no on that topic.

Q. And you do know that Dr. Barnhart who was the forensic pathologist on this case -- do you know that?

A. That is correct. Yes.

Q. Okay. And you know that Dr. Barnhart

listed complications of LSD as a cause of death; right?

A. That is correct.

Q. Where could you direct me to an authoritative reliable medical text that list complications of LSD as a cause of death?

A. Complications of LSD certainly can kill people.

Q. That's not what I asked, Doctor. I asked where could you direct me to an authoritative reliable text that lists complications of LSD as a cause of death?

A. The ACEP White Paper talks about excited delirium syndrome causing death and also associated with LSD as one.

Q. The ACEP White Paper?

A. Correct.

Q. That's the one you wrote?

A. That's the one I participated with it with an expert panel. Yes.

Q. Other than the one, the ACEP White Paper that you wrote, point me to an authoritative reliable medical text that list complications of LSD as a cause of death?

A. I didn't research specifically for complications of LSD. I know that it can cause people to do things to kill themselves. I reviewed articles on that. But if you're looking for a textbook that says those exact words, I don't know if it's if there or I just haven't looked for it yet.

Q. So your answer is you don't -- you can't point me to an authoritative reliable text that list complications, in quotes, of LSD as a cause of death; correct?

A. That is correct.

Q. All right. Now can you -- have you done in research in LSD?

A. I've haven't done specific research. You mean, looking at the drug itself?

Q. Yes.

A. Then no.

Q. You're not a pharmacologist either, are you?

A. I am not. No.

Q. You can't give a toxic level of LSD, can you?

A. LSD itself is to be -- thought to be one

of the safer drugs as far as true pure overdose. But it can cause behaviors and activities that lead to death.

Q. Well, that's not what we have here, is it, with Mr. Goode? We don't have him jumping out of a window, for instance, or are off a bridge or some other, or killing himself? We don't have that sort of secondary cause of death secondary to the LSD, do we?

A. Well, the LSD will cause acidosis. The LSD caused him to hallucinate and be delirious causing him to resist and struggle and fight and be combative. And that agitation that resistance in that continued fighting caused more acidosis which would lead to the sudden cardiac arrest.

Q. Now, Doctor, you know what, you testified in a case in Nashville I believe where you said that the hogtie restraint reduced oxygen consumption and therefore was beneficial to somebody in a state of excited delirium, did you not?

A. That sounds something familiar that I would say. Sure.

Q. So what you're saying now is

diametrically opposed to what you said in the case in Nashville?

A. I don't agree with that.

Q. Why don't you? You said that if somebody is hogtied and they can't move their major muscles, then they're their oxygen consumption would go down and that would be beneficial in calming -- in bringing in more oxygen safeguarding the subject; correct?

A. Sure. It was protective of Mr. Goode, the position was decreasing his oxygen demand. And it was keeping him from using his large muscles, but he kept resisting and kept struggling, and that was continuing to cause acidosis. It was less than he would have had had he been using the big muscle groups by moving them more freely. But his agitation and his consistent the struggling and his consistent yelling was all building up more lactic acid. So the position was the best to help him. But unfortunately he kept fighting against it because of the drugs.

Q. How did he -- do you agree that Mr. Goode was hogtied?

A. That's how I understand it, the hands

and the feet were pulled together behind his back.

Q. No question about that; right?

A. That's the position I'm operating under as far as what I assume he was in.

Q. And you have defined in your works the hogtie position is having hands bound behind the back, feet bound, knees bent up, and the hands and feet connected by a chain; right?

A. Connected by something. Yes.

Q. And what was the distance between Mr. Goode's hands and feet when he was hogtied?

A. As I understand it, it was probably six to eight inches, something along those range. Maybe a little bit more, maybe a little less.

Q. Marijuana played no part in Mr. Goode's death; agreed?

A. I wouldn't opine that it did. No.

Q. Did you say that Mr. Goode's death was sudden?

A. Did I say it was sudden?

Q. Yes.

A. His cardiac arrest was sudden. Yes.

Q. Define sudden death? How do you define sudden death?

A. Basically the heart goes into an irregular beat and a sudden change in physiology, the person goes unconscious, has a few agonal respirations, and then is, I guess, dead at that point and resuscitated.
Q. Now when did his heart go into an irregular beat?
A. Around the time where the officer noted that he had calmed down and looked and saw that he had turned blue, just prior to that.
Q. How do you know?
A. Because up to that point he was verbal and saying things and still moving, and then he became quiet. And then -- all the cadence of that evaluation basically was within a minute or so.
Q. How do you know?
A. Based on the testimony.
Q. Based solely upon the testimony of a defendant police officer; correct?
A. Based on the police officer's reporting, sure.
Q. With a police officer with no medical training; correct?
A. I don't know the background of his

medical training. They usually have some basic life support training. But I don't know the specifics of this officer.
Q. You don't know what happened in the last ten minutes of Troy Goode's life, do you, other than what the police officer said?
A. If you're asking if I was in the room, no. As I understand though that he was yelling and making noises, and those types of things were being reported.
Q. Doctor, we can agree that you weren't in the room. My question, so you don't have to qualify your answer with that, you can simply say the only way -- the only information you have is from Officer bag begin; correct?
A. I believe there was a witness in the other room that said he was making noises as well from across the hall. So that's somebody else saying that he was verbalizing something. But the most of the work is from Officer Baggett as far as what I understand.
Q. What witness are you referring to in the other room?
A. I'd have to look her name up. She was

deposed by -- Janet Tharpe.
Q. And she said -- tell us what your interpretation of Ms. Tharpe's testimony is?
A. She was saying that she was hearing some moaning and some noises that were loud from across the hall that she thought were from Mr. Goode.
Q. She said she was hearing someone yell breathe; correct?
A. She heard the word breathe as well. But she also reflected that she heard some moaning going on that was very loud.
Q. What did she see when Mr. Goode was passed on the gurney within inches of her?
A. I'm not sure about inches. But he was alive and had a very red face apparently and his eyes look like they were bugging out.
Q. And was incapable of movement; correct?
A. Her report that he was unable to move is in a position that look like he couldn't move.
Q. Sir, I didn't understand that.
A. She reported that he appeared to be in a position where he couldn't move.
Q. Well, you know from all of your work of hogtying, if you're hogtied you're not going to be

doing much movement, are you?
A. I disagree with that as well. People can roll gurneys over and hogtied and flip over and turn if they are so in desire of doing that and under the influence of drugs. So they can certainly move around a lot. They just can't do a lot of flexion and extension of the large muscle groups.
Q. So your testimony is you've known people turn over gurneys who were hogtied and represented a threat to others?
A. There's a compound question there. But I have known people to flip gurneys over who have been restrained. I have also had people get hurt by head butting and flipping and stuff like that while they're hogtied, sure.
Q. You -- well, strike that. You have used -- can you refer us to any authoritative reliable medical text that says that LSD causes death?
A. If you're asking about in and of itself just use of it as a toxic medication -- or drug, I don't believe it cause it by itself. But the behaviors created by LSD as we talked about earlier has been published and caused people to do

things that end up dying.
Q. Well, we'll talk about this more. But tell the jury what drugs are commonly associated with excited delirium?
A. Sure. If you look at the literature they refer to cocaine, methamphetamine, PCP. There's some data about bath salts now that seems to be out there. And LSD is listed as well.
Q. LSD is virtually unseen in the literature, isn't it?
A. Virtually unseen in the literature under --
Q. In the context of excited delirium?
A. It is not as common as cocaine and methamphetamine.
Q. Not as common. Cocaine and amphetamine account for 99.9 percent of excited delirium situations; correct?
A. I don't know about that number. But it's certainly a strong majority of those two drugs, yeah.
Q. You have written that early intervention is the best approach to avoiding death in a person who is in excited delirium due to drug

intoxication; correct?
A. Early intervention is the best way to try to avoid sudden death. It doesn't necessarily prevent it.
Q. Well, and you've also written that the people who have the opportunity for the earliest intervention are the EMTs particularly; right?
A. They often are the first ones to have a medical contact with the patient.
Q. And they were in this case?
A. The EMTs were involved in this case. Yes.
Q. And when the EMTs arrived on the scene what was Mr. Goode's status?
A. I believe he was -- actually I don't remember still if he was restrained at that point or not. But he was agitated, violent, combative. And I don't remember if the police actually already had him restrained or not at the time of their arrival.
Q. Mr. Goode was no threat to anyone when the EMTs arrived; correct?
A. Just to answer the question I don't remember the exact status. But if he was

restrained, he was certainly less of a threat than if he wasn't restrained.
Q. Well, if the police officers on the scene said that he was secure and represented no threat, you have no information to the contrary to that, do you?
A. Anybody can be a threat if you're not careful around them. But if he is restrained, then he would be less of a threat than if he was not restrained.
Q. Doctor, if the police said that Troy Goode was no threat by the time the EMTs got there, do you have any information to contradict that?
A. Zero threat, I think there is no patient that is zero threat, that's what I'm trying to get at. If he was restrained then he was a less of a threat than if he was not restrained.
Q. You have also written that a patient in an agitated state should have a heart rate monitor placed; right?
A. When feasible, sure.
Q. Well, it was feasible in this case, wasn't it?

A. There was a point where it could be put on, sure.
Q. And you've also written that a patient in delirium should have constant pulse oximetry; correct?
A. When feasible, sure.
Q. Well, pulse oximetry was done in this case; right?
A. It was attempted. Yes.
Q. No. It was -- there was an assessment at the scene by Richard Weatherford. Are you aware of that?
A. There was a scene assessment, sure.
Q. And are you aware that Mr. Weatherford did not record the pulse oximetry that he took?
A. I did not see a pulse oximetry reading in the pre-hospital record.
Q. If you do vitals testing you're suppose to record the results; right?
A. If the vital sign testing appears to be reliable I would record them. If it seems to be inconsistent or not functioning correctly, I would not record them.
Q. Oh, I see. So if you've got a pulse

30

oximetry reading and you determine that it was not reliable, you just ignore it; is that what you're saying?

A. No.

Q. What you would do for good medicine is get another reading, wouldn't you, to see if you can replicate the result?

A. If feasible you can, yes. These patients are often so agitated or so moving or cramped up with the hands with the cuffs that it's virtually impossible to get a pulse ox reading. And so if you're getting numbers that are very inconsistent, then there would be no reason to report them because they're not accurate.

Q. Yes, if you get multiple numbers that are inconsistent; right?

A. Or multiple numbers -- you're putting the pulse ox on and you're getting multiple reads over time. You don't have to keep taking it off and putting it on to actually check to see if it's reliable.

Q. Fine. Was that done?

A. I don't know.

Q. It should have been done; correct?

31

A. It is something you try to do when the person is in the position to be monitored. But if they're still struggling and rolling and spinning, there is no utility of trying to hook up wires and monitors because they just keep falling off give you either artifact or unreliable numbers.

Q. What is your understanding of the size of Mr. Goode?

A. I believe he was six foot, roughly 170 pounds.

Q. Actually he was closer to 150 on his driver's license. One seventy was postmortem; correct?

A. Which probably is a more accurate weight, but yes.

Q. He was bloated? He was full of fluid?

A. People don't typically gain weight after death. Their body weight is their body weight.

Q. And how many officers were on the scene?

A. I am not exactly sure. I know there were at least three, but I don't remember the exact number.

Q. How many medics were on the scene?

A. Same answer, I'm not a hundred percent

32

sure how many medics were on the scene. At least two, but I don't know.

Q. Well, assume that there were only five -- actually, there were more like eight. But are you saying with that manpower present that a pulse oximetry could not be obtained?

A. I'm saying that people in this state are often very difficult to have monitors placed and maintained at any functioning status because of movement and artifact.

Q. Well, if that's the case then you've also written that the thing to do is to quickly medicate; right?

A. That is one of the things we recommend doing for patients who are recognized as being in this state.

Q. Right. So what you do is you use chemical restraints to calm the patient down; right?

A. Sedating medication, sure. It's semantics.

Q. Well, no it's not semantics. The center says that any drugs administered to effect behavioral changes is a chemical restraint, you

33

know that?

A. There are different levels of chemical restrain which is why I try to differentiate paralytics or chemical restraint that are used often by trauma surgeons. That would not be appropriate in this type of case. So when I'm using the word -- if you're using the words chemical restraints to reflect benzodiazepines or anti-psychotics to calm somebody, I'm happy to use that term.

Q. No. I was using the Center for Medicaid Services. You are aware of that organization, aren't you?

A. I've heard of them. Yes.

Q. You know it's a federal government agency; right?

A. I haven't really gone into detail what they are. But sure it sounds like a government agency.

Q. You know they promulgate regulations that are binding on hospitals that accept Medicaid or Medicare money; correct?

A. Again, I haven't looked to their role in that kind of detail.

34

Q. Let's see -- I'm looking at Dr. DiMaio's Excited Delirium Syndrome: Cause of Death and Prevention. And I want to read you a brief section of this about excited delirium. It says acute excited delirium is the section. The quote is on initial presentation one cannot determine if the excited delirium is due to intrinsic mental disease or the drugs. In the emergency room one has the theoretical advantage that one has access to medications. Since such individuals are virtually always struggling medication has to be given intramuscularly. You agree with that?

A. I agree with parts of it, not all of it.

Q. Well, what part do you agree with?

A. That -- fortunately I would love to have it in front of me to be able to give you an exact. But we have the advantage of having medications in the emergency department, sure I agree with that. It's often difficult to tell the difference clinically when you're looking at somebody whether it's psychiatrically induced or drug induced. Sometimes they can be very similar, I agree with that.

Q. Right. But we don't have any issue

35

about that here, do we, because Mrs. Goode reported the LSD in time?

A. Correct.

Q. So that's not an issue?

A. You just asked me what I agreed with or disagree -- you agree with in this thing. I just gave you the parts that I agreed with that I can recall.

Q. I understand. Now do you agree or disagree with the statement since such individuals are virtually always struggling medication has to be given intramuscularly; do you agree or disagree?

A. I would disagree.

Q. Well, the reason Dr. DiMaio, whether you agree with it or not, says intramuscularly the alternative is intravenously; correct?

A. That is one other alternative, sure.

Q. And IV is much more difficult to place than sticking somebody in the arm or the butt with a needle; right?

A. It technically would be considered more challenging than an intramuscular injection, sure.

Q. Right. And Troy Goode had an ID placed

36

by the paramedic; correct?

A. Correct.

Q. Which would indicate he was not so out of control that she could not place an IV; correct?

A. At the time that she was placing the IV that would seem to be reasonable.

Q. Now you have asserted that LSD can cause excited delirium; right?

A. I opine that it can, sure.

Q. Okay. And it is also true that LSD was in its heyday in the '60s and '70s; correct?

A. It was used more frequently then, sure.

Q. More frequently. It was used -- do you know who Timothy Leary was?

A. I'm sorry?

Q. Do you know who Timothy Leary was at Harvard University?

A. The name is familiar. But I couldn't give you any background on it.

Q. Well, what's your age?

A. I am 51.

Q. You remember the Grateful Dead?

A. Yes.

37

Q. You know all the LSD concerts or all the concerts where LSD was so prevalent?

A. Absolutely.

Q. Okay. And during the heyday of LSD there were zero reporting deaths due to LSD; you agree?

A. I wouldn't have researched that to the point where I could agree or disagree.

Q. Okay. So you can't say -- you can't point to one death in the heyday of LSD that was attributed to LSD toxicity; right?

A. You're talking about toxicity or behaviors associated with the drug?

Q. No. I'm not talking about behaviors. I'm not talking about people going crazy and jumping off buildings. I'm talking about toxicity of the drug.

A. I think we talked earlier I don't believe that the LSD is considered a drug that typically is in and of itself a toxic drug that kills based on it's chemistry.

Q. And you also agree that in the heyday of LSD use there were zero reported cases of excited delirium attributable to LSD complications;

38

correct?
A. In that day the term excited delirium hadn't actually been used. So it wouldn't have been put out there. That came out more in the times of the cocaine, heroin, they were seeing more deaths associated with it.
Q. Actually the excited delirium or agitated excited delirium deaths had been reported back into the 19th Century in psychiatric patients; correct?
A. Right. But you used the one term I think excited delirium, and that term wasn't really being used until the '80s. So you wouldn't expect to go and see LSD deaths secondary to excited delirium in the '60s or '70s. It wouldn't have been treated then.
Q. Fair enough. In the '60s and '70s, did you see one death attributable to agitated delirium caused by LSD, one death?
A. I didn't review the literature from the '60s and '70s. I know that since -- Ronald O'Halloran I believe reports of a death secondary to LSD and excited delirium in his case theories.
Q. Ronald O'Halloran is a forensic

39

pathologist?
A. That is correct.
Q. And Dr. O'Halloran has publicly stated that if hogtying in a prone position has nothing to do with the death of people under the influence of drugs, why does it always occur when those people are in police custody; correct?
A. Why does it meaning the death or the --
Q. Dr. O'Halloran has publicly stated that all deaths in hogtie restraints in excited delirium from drugs occur in police custody?
A. He may have claimed that. I would disagree with it.
Q. Okay. Now, Doctor, you do agree that when cocaine came on the scene in the 1980s and thereafter is when we saw the excited delirium deaths attributable to ingestion of that particular drug; right?
A. That's the time period. Yes.
Q. And cocaine and amphetamines are stimulants; right?
A. They are stimulants. Yes.
Q. Is it correct that in Dr. Gall's, G-A-L-L, forensic medicine that the descriptions

40

of excited delirium like presentations in the late 1800s and early 1900s were noted in the medical literature?
A. Bell's mania and other names of it describe the subjects or patients presenting with symptoms consistent with excited delirium in that time period. Yes.
Q. And going on quoting: At this time the reports of death from this syndrome started fading coinciding with the introduction of anti-psychotics for the treatment of agitated patients in psychiatric facilities. Right?
A. The reports did start to go down because people were being treated with medications. Sure.
Q. And they were down at the time that LSD came on the scene?
A. I guess in that time period, yes the psychiatric patients were being treated with Thorazine and other anti-psychotics. And that was the same time period that LSD was out there. Sure.
Q. You've stated that in your -- to your understanding Mr. Goode was hogtied; correct?
A. Yes. He was in a prone maximal

41

restraint position, also known as hogtie.
Q. How long did he stay in that position?
A. He was in it from the time the police officers put him in until the time he had his cardiac arrest. And that was somewhere about an hour and a half in that range.
Q. Is it correct that people who are in a delusional state of excited delirium do not appreciate their surroundings?
A. They are often altered by their surroundings. They see things. They hear things. What they interpret from their surroundings is often unknown because of what's going on in their head.
Q. Is it correct that these people are not aware of their condition of delusional state?
A. They typically don't recognize that they're delusional if that's what you're asking. They are just experiencing it. But they don't have an awareness of that delusion.
Q. Certainly they don't know what they are doing; right?
A. That is usually felt to be the case, yeah. They're unaware of what they're doing,

42

their activities. Sure.
Q. They are unaware of being bound also; correct?
A. They may realize they can't move. They may not know why or -- again, what's going on in their head with the drugs that are sort of swimming around and causing confusion and delusion is hard to say in every case it's the same way.
Q. Well, you would agree that it would be unlikely that somebody in an extreme delusional state would know that he had been chained; right?
A. It's possible that they sense something going on that somebody is holding them or dragging, holding them or -- it's hard to say what's happening. But they may recognize that they can't move. They may not recognize they can't move. Again, I think it's they're -- what's going on in their head is very difficult. But they may or may not be aware specifically.
Q. Well, the state which you describe as excited delirium would be so extreme that a person would be highly unlikely to realize that he was in handcuffs, for instance?
A. He may not recognize it was handcuffs.

43

He may recognize that the devil is holding him or other things. Again, that's sort of the part of delusional stuff. He hey not know exactly what's going on, but he has probably some awareness. He recognizes -- they recognize people coming at them because they get paranoid and freak out. So there is a level of awareness. But how detailed that is or how accurate that is is really difficult for anybody to understand on all cases. It's usually more case individual.
Q. You wouldn't expect a person in extreme excited delirium to yell out get me out of these chains, would you?
A. They could. Sure.
Q. How would they know they were in chains?
A. They could be aware of it. They could have seen it. They could be heard jingling. They could be sensing the sounds, the feel. Again, it's a delusion. It's not -- it can wax and wane to some degree. But the reality is the level of awareness that is happening vary from people to people. I have seen all kinds of variations on how they seem to -- how they seem to interpret their environment and surroundings.

44

Q. So what you're telling the jury is that there is no checklist as such for determining a person that is in excited delirium?
A. I don't think I said that. I said that you can't completely define what they are interpreting their environment to be. There have been some people who say shoot me shoot me making an awareness that there might be a gun with the officer there. So there's different levels of awareness. But it doesn't mean that they are not delirious and interpreting their environment and what's going on correctly.
Q. Very well. Let me ask you -- let's put that aside. When a person presents with these markers or these characteristics as you said of excited delirium and medical care arrives, that person in a state of excited delirium syndrome should receive pulse oximetry; correct?
A. When feasible, sure. It's reasonable.
Q. And when is not feasible?
A. When they're moving so much that they can't either get a good tracing or it keeps falling off. You don't put something on somebody that is either grabbing the wires or can't keep it

45

on their fingers. A lot of times in an acute agitated state people try to put it on but in general it ends up getting pulled off just by virtue of the movement.
Q. For the jury's benefit there are different types of pulse oximeters; is that correct?
A. There's different types of attachments if that's what you're getting at.
Q. Right. One can go around the head; correct?
A. For pediatrics. We don't typically use that in adults.
Q. Well, Baptist Hospital does. Would you argue with that?
A. I'm not aware of it. So I couldn't say one way or the another. But if his head was down on the ground it probably would not be as functional because of the movement and things like that. But I can't say that they did or didn't try it.
Q. Well, if you place a pulse oximetry around the head it's not going to come -- be shaken off by somebody in hogtie; right?

A. It certainly could be. Sure.
Q. Doctor, you understand that your opinions is suppose to be to a reasonable degree of medical certainty; right?
A. Absolutely.
Q. So all of this could be, and may be, and these hypotheticals you understand are not acceptable testimony; correct?
A. If you're asking me questions I'm giving you the answers to those questions.
Q. Has your testimony ever been excluded from a case? Have you ever been excluded, your testimony in whole or in part from any litigation?
A. Not to my knowledge. No.
Q. Did you testify in the case of Rich versus the City of Savannah Tennessee?
A. I believe I did. Yes.
Q. And the United States magistrate judge in that case held that you did not have the expertise to offer some of the opinions you tried to offer?
A. I was not made aware of that.
Q. In that case you were hired by the police after a man died in a confrontation with

the police?
A. That case is a long time ago. So I don't remember details of it. That certainly could be the case.
Q. You attempted to testify that the cause of death was not related to asphyxia in Rich versus City of Savannah; right?
A. Again, it's been a long time since I've reviewed that case. But it certainly would be possible.
Q. Okay.
MR. EDWARDS: Bobbie, let's mark as the next exhibit -- Bobbie, if you will, hold the second exhibit for the order of Judge Pham in the case of City of Savannah.
THE REPORTER: I've done it. Mr. Edwards.
MR. EDWARDS: Okay.
(WHEREUPON, THE ABOVE-MENTIONED DOCUMENT WAS MARKED AS EXHIBIT NO. 2 TO THE TESTIMONY OF THE WITNESS AND ATTACHED HERETO.)
BY MR. EDWARDS:
Q. Doctor, take a look at that order and tell us that you were aware of the fact that Judge

Pham excluded much of your testimony in the case of Rich versus City of Savannah?
MR. GASS: Can I have the date the decision that's being referenced.
MR. PHILLIPS: I think it's September 30, 2005.
MR. EDWARDS: That is correct.
THE WITNESS: All right. Thank you.
BY MR. EDWARDS:
Q. Have you seen this order before?
A. I have not. No.
Q. Okay. So you were unaware that a federal judge here in Memphis had excluded some of your opinions?
A. I was unaware of a federal judge like this. When I go to court they tell me the areas they want me to talk about. So it could have been that that's what happened here. But I was not aware of this order.
Q. Fair enough. Now I was asking you about the things that should be done medically when a patient presents in a altered mental status like Mr. Goode. We talked about pulse oximetry is another thing which the paramedic should assess is

for head trauma?
A. You'll do an assessment of the patient the best you can. That's part of an evaluation. Sure.
Q. Right. Head trauma would be included in assessing the patient?
A. If feasible, sure you'll evaluate what you can with what you have in front of you. But that's part of an assessment, sure.
Q. Well, why would somebody being hogtied not be able to have the condition of his head assessed?
A. Sometimes you can't see the entire portion of the head. Sometimes you can depending on their positioning. With the agitation component you're not trying to completely disrupt and move around and create a lot of stimuli. You're trying to observe and evaluate, but you're not going to completely necessarily take off every piece of clothing to get a good assessment. You'll look -- based on the history on what you can see visually and look at somebody.
Q. Did Mr. Goode have a hat on?
A. I don't know. I don't believe he did.

50

Q. Another thing that should be done according to you is a glucose check; right?
A. At some point a glucose should be checked. Yes.
Q. Okay. And what is it that glucose levels would tell you as a physician?
A. If they're very low that could be an etiology for the agitation, or extremely high it could be another medical condition, but probably not the cause of the agitation, but could be.
Q. Was a glucose check done on Mr. Goode?
A. It was. Yes.
Q. Postmortem?
A. I don't think so. I thought it was done prior to his death.
Q. You have the medical records there and the EMT records; correct?
A. Yes.
Q. Show us where a glucose check was done prior to death by either the paramedics or the hospital personnel in the emergency department?
A. There's a bedside glucose noted 2139 of 95.
Q. That's 17 minutes after the code was

51

called; right?
A. That would be --
Q. He was dead?
A. Well --
Q. He was dead at that point?
A. You asked me -- he wasn't pronounced dead until later than that. I'm sorry, I misunderstood your question. If you're asking was there a glucose done prior to his cardiac arrest, I don't believe it was done prior to his cardiac arrest.
Q. Either by the EMS or the hospital personnel; correct?
A. Not that I am aware of. A chemistry test is ordered prior to his cardiac arrest. But a bedside glucose was not done until the time we just talked about.
Q. Tell the jury what's involved in doing a glucose check?
A. Typically it's poking the finger with some sharp object, a prong or what not getting some blood sample and putting into a machine.
Q. Right there at bedside?
A. Can be done right at the bedside. Yes.

52

Q. I mean, it's a very simple procedure, isn't it?
A. Basically, yes it's fairly simple.
Q. It is an essential part of the examination, the medical examination of a person deemed to be in excited delirium; correct?
A. It is part of the evaluation in somebody presenting in excited delirium, particularly if there's not an inciting cause. But it's not -- I wouldn't call it essential.
Q. Have you listed that -- you, Dr. Vilke listed glucose check as part of the exam of a person exhibiting the symptoms of Troy Goode?
A. I have said that you should check a bedside glucose. Yes.
Q. ECG is another thing that should be done; right?
A. ECG as a 12-lead EKG or cardiac monitoring?
Q. Either one. Was an ECG done in this case?
A. There was a three lead done in the field. Yes.
Q. And Lead 2 is the one that tells you

53

whether somebody is in supraventricular tachycardia; correct?
A. It's not necessarily a specific lead. You look at certain leads that give you the best reading.
Q. Lead 2 is the one mentioned in the literature for determining SVT, supraventricular tachycardia?
A. It can be used to look for SVT. But you cannot always tell whether somebody is an SVT based on a single lead tracing. Sometimes you need a 12 lead.
Q. Yeah. Well, if you need a 12 lead then you do a 12 lead; right?
A. That would be correct.
Q. Was a 12 lead done?
A. It was not done in this case. No.
Q. It should have been done if there was any question about the diagnosis of SVT made by Paramedic Graham; correct?
A. There is no doubt about the diagnosis it's not SVT. But in this case even if you wanted to get a 12 lead, it would have been impossible based on his behavior.

54

Q. Were you there, Doctor?
A. I was not there.
Q. Nurse Graham was able to get in -- I'm sorry, Paramedic Graham was able to get in an IV but she couldn't do an adequate ECG; is that what you're saying?
A. Being specific she got an ECG a single lead tracing. It would not be feasible to do a 12-lead EKG the way that Mr. Goode was described as behaving.
Q. So it was okay for the paramedics and the hospital to disregard the finding which is recorded of SVT, that's good medicine? We're just going to disregard it because we don't think it's accurate; is that what you're saying?
A. The paramedic recorded SVT. The rhythm strip does not show SVT. So there was no SVT to disregard even though it was documented in the paramedic record.
Q. Is it good medicine to disregard a diagnosis without verifying that the diagnosis is incorrect is my question?
A. Correct, paramedics do not make diagnosis. They do assessments. So there was no

55

official diagnosis of SVT being made. They interpreted rhythm as being potential SVT. But there was no diagnosis of SVT in this case.
Q. Did she record SVT?
A. That is what she wrote in her record.
Q. The paramedic wrote not once but twice SVT; right?
A. As the monitor, not as a diagnosis.
Q. Okay. And then so it was okay for the hospital, the emergency department to disregard that?
A. I don't believe the tachycardia was disregarded by the hospital. They recognized --
Q. It wasn't?
A. They recognized that he was tachycardic and they started therapy for that, which was the sedation to slow his heart rate down.
Q. How quickly was sedation commenced at the hospital?
A. Shortly after the physician was able to evaluate the patient, it was ordered and commenced.
Q. How long was that after he arrived at the hospital?

56

A. He arrived at 2028. The order was placed approximately 2106.
Q. So 36 minutes later?
A. That looks about correct. Yes.
Q. And it's also correct you -- you're an emergency physician; correct?
A. I am. Yes.
Q. You have worked in emergency departments; right?
A. Yes.
Q. Triage nurses can sedate people in Troy Goode's position; correct?
A. Can sedate them in his condition?
Q. Yeah.
A. Not at our hospital, not without an order.
Q. Sure. But if they a triage nurse determines that a patient is in excited delirium, they can simply ask the doctor for permission to administer something like Versed, for instance?
A. A nurse can make a request. But a doctor is typically not going to do anything until they get some evaluation of the patient. Usually you want to see what's going on, get some history,

57

get an assessment, vital signs the best you can before you start throwing meds at somebody. So a triage nurse can request it, doesn't mean they're going to get it.
Q. How do you get the history?
A. From the collateral history --
Q. Of a patient that's delirious?
A. I'm sorry, you interrupted me. I was saying the collateral history is helpful from either the EMTs or law enforcement that are accompanying them or the patient obviously if they can. In this case no.
Q. As a matter of fact EMTs or paramedics can administer chemical restraints such as Versed in an ambulance if they deem it necessary; right?
A. If the protocols allow and they meet criteria, there are certainly places that allow for sedation to be used by paramedics.
Q. Mississippi does; correct?
A. I don't know the protocols for Mississippi.
Q. Assume that the Mississippi protocols allow the paramedic to administer a chemical restraint like Versed, obviously Ms. Graham didn't

58

deem it necessary to sedate Mr. Goode; correct?
A. Just because protocols allow for something, you have to follow the protocol. I don't know the protocol, so I can't say whether or not it would have been appropriate or inappropriate to do it. I wasn't asked to review the paramedic's care in this case.
Q. Well, you supervise paramedics; right?
A. I have. Yes.
Q. And you're qualified to speak about paramedics; right?
A. I have been qualified, sure.
Q. And you know that paramedics if the circumstances require can administer chemical restraints in an ambulance; correct?
A. The word require is a strong word. Again, if protocols allow for it and they meet certain criteria and they don't meet certain exclusion criteria and their training and all that goes with it, then yes. Like I said, there are certain places that paramedics can gave medications for agitated patients. I don't know the protocols here. I wasn't asked to evaluate their treatment of Mr. Goode.

59

Q. And an agitated patient who is agitated due to LSD is a proper subject for a chemical restraint if he is truly out of control; correct?
A. A person who is extremely agitated on any illicit drug can be a candidate for sedation in the appropriate setting with the appropriate background and history and depending on who is giving it which protocols and certain requirements are required before giving the medication.
Q. So you don't know what the Mississippi protocol says one way or another?
A. That's correct.
Q. Okay. Now was Troy Goode an emergency?
A. I'm sorry, was he an emergency?
Q. Yes. Was he considered an emergency patient?
A. We can consider this state a medical emergency for evaluation, sure. Compared to a cut or an ankle strain it's considered a medical emergency, sure.
Q. And for emergency patients it is protocol to get them to the hospital as quickly as possible; right?
A. As quickly and as safely as possible.

60

That's one of the goals, sure.
Q. What you do is if -- for EMS what they do is they turn on the ambulance lights so that they can be an emergency vehicle; correct?
A. They can do it. Because of the risks associated with going fast lights and sirens there's lots of tiers in which -- even though the patient may be deemed a quote unquote emergency, you would still not go lights and sirens. Somebody with severe abdominal pain and a borderline heart rate and blood pressure would be an emergency, but you wouldn't go lights and sirens to get them to the hospital. So the protocol for lights and sirens vary from area to area.
Q. Okay. So why don't we cut out some of this. We're not talking about people with abdominal problems. We're talking -- we're here about excited delirium; okay?
A. Okay.
Q. Is an excited delirium patient such as Mr. Goode considered a medical emergency; yes or no?
A. The answer is we consider it a medical

61

emergency, sure.
Q. And a medical emergency is to be transferred emergently to the hospital; correct?
A. Emergently or urgently. Again, if you're defining emergently by lights and sirens, I would not agree with that. I think they should go as quickly and safely as possible without the necessary need for lights and sirens in these cases.
Q. You would certainly not sit for a number of minutes in the parking lot with the patient in the back taking no action, would you?
A. I think that I -- I think that as far as no action you're doing nothing versus assessing and doing other things, you're asking me questions about the case I really didn't review.
Q. Well, Doctor, look, you're coming in to testify about cause of death; right?
A. Yes.
Q. And don't you think it's important that you have all of the facts leading up to the death so you can render a valid opinion?
A. The facts that are applicable to determine the cause of death, sure. What's being

done in the back of an ambulance during a period of time is not applicable to determining cause of death. Whether they were poking him with an IV, doing an assessment, trying to get a pulse ox, trying to put a lead on, or what you said doing nothing, that doesn't apply to my determination of cause of death. I have the times down that things were going on, but not the necessary specific second to second or minute to minute play by play in the back of the ambulance.

Q. Does weight applied to Mr. Goode's back when he was hogtied and prone have any impact on your opinion?

A. At the time in the hospital or when are you referring to?

Q. At any point in time.

A. In the case of his -- in looking at the -- assessing the whole case, the answer would be if weight was applied during the restraint process by police, the fact that he was alive the next hour plus, hour and a half plus, that would not have any impact on my opinion as far as did the weight have any causation to the cardiac arrest. The straps are being used in the back of the

ambulance if they were there and he got to the hospital and they were removed and he was still alive and kicking and struggling and showing signs of life and good vital signs -- or not good vital signs, but positive vital signs, that would not impact my opinion. I note it, but it wouldn't impact my opinion.

Q. Have you not seen cases where there was a delayed asphyxiation death after application of weight?

A. A delayed asphyxiation death after the application of weight?

Q. Was there not a reported -- excuse me, was there not a reported case of death two days after application of weight due to asphyxiation?

A. I would be happy to review that. If you're referring to somebody who had a cardiac arrest at the time and was asphyxiated and died in the hospital two days later, I guess that's a feasible thing. But as far as somebody who had weight on them and then they had their cardiac arrest event two days later, I would certainly not think that the weight had an impact on that.

Q. How much weight was put on Mr. Goode at

any one time?

A. In the hospital there really wasn't much weight at all on him at all. He was left on the gurney. In the back of the ambulance he had some straps on him. The weight that was used to try to get him in custody by police was varying and moved around. But the reality is the fact that they -- after he was restrained he was assessed by paramedics and assessed at the hospital and had a blood pressure and a heart rate and was alive and yelling and streaming. No matter what that weight was, it wouldn't have impacted his outcome. It wouldn't be part of his cardiac arrest.

Q. How many police put their weight on Mr. Goode at the scene?

A. I seem to recall about intermittently three police officers were back and forth. I couldn't give you an exact time or amount.

Q. Do you believe that in a drug induced excited delirium state where there is death, the death is preceded by cycle of alternating struggle and collapse?

A. I'm sorry, could you repeat that again, please?

Q. Yes. Is death in these circumstances preceded by alternating cycle of alternating struggle and collapse?

A. I would not say that that's necessarily uniform, no. I think it's thought of struggle, struggle, struggle. And then they have a cardiac arrest is typically what you see, not necessarily an alternating pattern.

Q. Let me give you a quote. "Death is preceded by a cycle of alternating struggle and collapse." Agree or disagree?

A. I can't interpret that sentence. If you're talking about collapse as far as physical exhaustion versus cardiac collapse or cardiovascular collapse, I'm not sure what the context is there.

Q. I'm just quoting Dr. DiMaio.

A. You're giving me one sentence. So, again, I'm not sure what he means by collapse. So I can't interpret that sentence.

Q. That's the whole sentence. That's all I can give you. Was Mr. Goode ever bradycardic?

A. Not that I recall being -- during the time before he had his cardiac arrest, he was not.

66

Q. How do you know was he monitored?
A. He was -- you mean as far as on a cardiac monitor, not consistently, no.
Q. Was he monitored at all?
A. Well, yeah. We have his rhythm strips. We know he was on a monitor for at least a small window of period to get that rhythm strip, but he was not --
Q. Is that in the hospital record or the EMT record?
A. The EMT record.
Q. No, Doctor. At the hospital where he was there for an hour or so, was he ever monitored for cardiac rhythm?
A. Sorry to upset you, I was just asking answering your question was he ever monitored, so we're at the hospital now. And he had pulse checked but he was not on a cardiac monitor prior to his cardiac arrest. He was monitored obviously after the cardiac arrest.
Q. But that doesn't do much good, does it?
A. Just answering your question.
Q. So you can't say whether he was ever bradycardic or not; right?

67

A. I can't say -- he certainly was not documented as bradycardic. His behavior would very consistent with bradycardic. But I can't say for the exact time he was in the hospital prior to his cardiac arrest that he was not bradycardic.
Q. Can hypoxia cause cardiac arrest?
A. Hypoxia can cause cardiac arrest. Yes.
Q. When did Mr. Goode's -- was he dysrhythmic?
A. He was tachycardic, which is some define as a dysrhythmia. And he obviously went into PEA which was a dysrhythmic event.
Q. When did he become dysrhythmic?
A. Well, again --
Q. Can you tell us?
A. If we're defining tachycardia as a dysrhythmia he was dysrhythmic the entire time. It's an irregular rhythm. It's not a normal sinus rhythm. It's a sinus tachycardia.
Q. What you do medically to address dysrhythmia is what?
A. You treat what you feel to be the cause of that dysrhythmia.
Q. And I'm asking you what that is?

68

A. Well, in this case it was a sinus tachycardia --
Q. The treatment what was the treatment?
A. Sure.
Q. That should apply?
A. In this case it was a sinus tachycardia most interpreted to be due to drug use and agitation. So you treat that by starting sedation medication to try to calm the person down, lower the heart rate based on that.
Q. Actually you've testified that when you have people come in to your emergency department under the influence of LSD you often just put them over in the corner until they calm down; right?
A. Depends on what their presentation style is. As you alluded to there's all kinds of presentations to LSD intoxication. If they're just mellow and tripping, then yeah you can watch them without a monitor in a corner somewhere. If they're extremely agitated, then you're going to try to use sedating medications to calm them.
Q. As quickly as possible for the sedation medication?
A. Possible and reasonable, sure.

69

THE WITNESS: Would this be a good place to take a quick break?
MR. EDWARDS: Sure.
THE VIDEOGRAPHER: Time off the record is 9:22 a.m.
(WHEREUPON, A BREAK WAS TAKEN AND THE PROCEEDINGS CONTINUED AS FOLLOWS:)
THE VIDEOGRAPHER: Time back on the record is 9:30 a.m. This begins Media No. 2. Counsel, you may proceed.
BY MR. EDWARDS:
Q. Doctor, shifting to another subject, we talked about chemical sedations, chemical restraints. Haloperidol is a chemical restraint; correct?
A. It's a medication used to sedate people. It can be considered a chemical restraint.
Q. And was Haloperidol used on Mr. Goode?
A. It was. Yes.
Q. And it was inserted through an IV; is that correct?
A. That's how it was administered. Yes.
Q. You are aware that the FDA issued a black box warning against IV Haloperidol use?

A. There was a warning out for Haldol use.
Q. And it's because there were deaths experienced after IV administration of Haldol or Haloperidol; correct?
A. There were some reported deaths. Yes.
Q. So the way Dr. Oliver ordered the administration of Haldol was against the warning from the FDA; right?
A. Well, the warning is to be aware that this can happen. It's still the commonly used medication in the emergency departments across the U.S.
Q. And if you're going to do that then you need to monitor the patient after you inject it; right?
A. After you put the medication in there and as soon as you start monitoring you would watch the patient. Yes.
Q. And why do you -- tell the jury why it is after you administer Haldol or Haloperidol that you must watch the patient?
A. The black box warning basically says there is a few cases out of literally millions of administrations of Haldol that caused torsade de

pointes, it's specific dysrhythmia that can kill somebody. And so you're going to watch to make sure if they go into it you're ready to treat it.
Q. It's more than that, isn't it? If you administer Haldol it can change -- it can affect breathing; correct?
A. It can affect, I'm sorry, what?
Q. Breathing?
A. Haloperidol? It's usually not considered something that would impede ventilations. It's a sedating medication, but it's usually not considered significantly ventilatory involved.
Q. Can it change respiration?
A. If it sedates somebody who is breathing quickly because they're agitated, then sure your respiratory rate might decrease. But it wouldn't change your ventilations.
Q. Well, one of the things that people who are trained to do observation of patients that have received chemical restraints is look for changes in respirations; right?
A. You're looking for -- you're following their breathing patterns, sure. That's fair.

Q. All right. And you're also looking for changes in heart rate?
A. At some point when you can monitor them you would reassess them for the sedating qualities. It should lower the heart rate. That's part of the purpose of using the medicine, sure.
Q. By the way, was Mr. Goode's heart rate measured either by the EMS or the medical personnel at the hospital?
A. It was. Yes.
Q. And -- I asked the wrong question. Was his blood pressure taken?
A. It was taken. Yes.
Q. And what import, if any, that there was a 30 point drop in the diastolic within a few minutes?
A. Physiologically and clinically it wouldn't have changed anything. The measurements in these types of patients sort of bounce around. And you measure, you know, five blood pressures you're going to get five different numbers, and they could be variable 20, 30 points depending on what's going on there.

Q. Well, once again the only way to know that is by continuing to monitor; correct?
A. If you wanted to recheck the blood pressure multiple times, sure. That's how you would do that.
Q. And that was not done with Mr. Goode either, was it?
A. He had several blood pressures checked during his time.
Q. He had two blood pressures in the ambulance, but then his blood pressure was not monitored at the hospital; correct?
A. I believe it was checked at the hospital.
Q. You want to show us -- it was measured at 164 at one point; right?
A. His heart rate I think was 164. His blood pressure was not that obviously.
Q. His blood pressure was normal?
A. That is what I recall.
Q. All right. Is it accurate that --
MR. EDWARDS: Well, first of all, let's mark the FDA black box.
(WHEREUPON, THE ABOVE-MENTIONED DOCUMENT

74

WAS MARKED AS EXHIBIT NO. 3 TO THE TESTIMONY OF THE WITNESS AND IS ATTACHED HERETO.)
BY MR. EDWARDS:
Q. Doctor, have studies Shown that more than half of patients develop respiratory depression in response to chemical restraints?
A. Have half the studies shown?
Q. No. Listen to the question. Have there been studies, peer reviewed studies, publications that have shown that more than half of patients develop respiratory depression in response to chemical restraints?
A. I know the patients will breathe less than when they're agitated. So their ventilations and respirations have been depressed from their starting point. So that would make sense. It's part of the sedation process.
Q. Are you familiar with the work of Dr. Deitch, D-E-I-T-C-H, from two years ago on unrecognized hypoxia and respiratory depression in emergency department patients sedated for psychomotor agitation?
A. I am not familiar off the top of my head based on that title and author.

75

(WHEREUPON, THE ABOVE-MENTIONED DOCUMENT WAS MARKED AS EXHIBIT NO. 4 TO THE TESTIMONY OF THE WITNESS AND IS ATTACHED HERETO.)
BY MR. EDWARDS:
Q. Doctor, are you saying you're not familiar with this?
A. May have reviewed it at some point. I'm not familiar with the details of it right now.
Q. Okay. It was published in Western Journal of Emergency Medicine; correct?
A. That is correct.
Q. Is that a reliable source for medical information?
A. It is a peer reviewed journal.
Q. So is your answer yes it's deemed reliable?
A. It's as reliable as the peer review is reviewing it. That's what I'm getting at.
Q. Okay. Now Mr. Goode also received Ativan; is that correct?
A. He did. Yes.
Q. And is it true that before chemical restraints are applied that any underlying disorder such as hypoxemia or hypoglycemia should

76

be treated?
A. I apologize, I lost you in the question. Can you please repeat it?
Q. Yes, I will be glad to. Is it accurate to say that before sedating a patient any underlying problem, medical problem should be treated first as a potential pitfall as administering anti-psychotics to a patient who really has an underlying disorder such as hypoxemia or hypoglycemia?
A. Ideally that would be the case if there is a suspicion for it, if it's a diabetic or they have a low O2 sats, joint hypoxia, you would want to consider addressing those first. But sometimes you do the evaluation after you give the medication because of the agitation behavior.
Q. Are you aware that Mr. Goode had moderate hypoxia --
A. He had an O2 --
Q. -- before receiving chemical restraints?
A. He had a documented O2 sat of 90 percent which wouldn't be considered hypoxia that would induce this type of behavior. So that would basically rule out the concern for hypoxia in this

77

patient.
Q. Doctor, is 90 percent low?
A. It is a low normal range. Yeah.
Q. Is it a condition which demands supplemental oxygen administration?
A. It does not demand it. It can be considered.
Q. It should be administered, correct, supplemental oxygen?
A. Depending on the circumstances it should be considered. But you have to take a look at the entire picture. We're talking about specifically this case or talking about an O2 sat of 90 percent in general as a number. It's case specific.
Q. Well, the Mississippi SOPs for EMS say a 90 percent reading should receive supplemental oxygen, would you take issue with that?
A. I think it's case by case. If you have somebody who has Eisenmenger's syndrome their O2 sat may never get above 85. So you wouldn't need to give them supplemental oxygen if that's where they live. That's what I'm saying you have to look at case by case.
Q. Well, case by case if you get a 90

78

percent reading, you just ignore that?
A. No.
Q. What you do is you check it again; right?
A. Or you look at the clinical scenario and see if that's appropriate for that patient or if it's even a correct reading in that patient.
Q. What was Mr. Goode's O2 saturation after he was admitted to the hospital?
A. The documented O2 sat was 90 percent.
Q. And what was it 45 minutes later, 40 minutes later when he coded?
A. You can't pick up an O2 sat during a code basically. So you wouldn't be able to measure that.
Q. Of course. What was it just before he coded?
A. I don't have a number to share with you.
Q. You have no idea, do you?
A. I don't know what the number would be at that point. No.
Q. Because the hospital didn't monitor his blood oxygen saturation; correct?
A. Because of his behavior precluded the

79

use of a O2 sat monitor to follow him.
Q. That's what you've been told; correct?
A. That's what I read throughout the record. Yes.
Q. You have written repeatedly that for these types of patients O2 saturation monitoring is a requirement; correct?
A. I don't believe I used the word requirement. And I said when feasible.
Q. And are you saying -- have you ever had a patient that weighed 250 pounds or more who was in agitated delirium?
A. Yes.
Q. Did you manage that patient?
A. Yes.
Q. Actually in one of your testimonies or one of your reports you say you and two untrained unarmed security guards subdued a patient who was an agitated delirium just the three of you; right?
A. I don't recall that. But I'd be happy to review that testimony.
Q. You have done that though, haven't you?
A. I've assisted with taking down patients who are agitated.

80

Q. Yes. And the people that take them down typically are nurses; right?
A. If the patient gets agitated in the emergency department they may be the ones. They're the first there to help out, sure.
Q. You think that this -- giving you the benefit of the doubt this 170-pound bean pole was unmanageable?
A. At what point are we talking about?
Q. At any point. Have you seen pictures of Mr. Goode?
A. I have seen some pictures of him. Yes.
Q. He was an absolute rail, wasn't he?
A. The BMI calculated about 24 which would make him the normal range.
Q. He was a very skinny man, wasn't he?
A. He was a normal man based on his body mass index for his height and weight.
Q. Okay, fine. Giving you that, he certainly was not an NFL player, was he?
A. Unless he was a puncher.
Q. Doctor, when you give a chemical restraint that patient needs to be monitored; correct?

81

A. The patient -- yeah. The patient should be monitored after a chemical restraint is utilized, sure.
Q. Because -- and the monitoring needs to be done by a trained staff member --
A. A trained --
Q. -- of the hospital?
A. A trained staff member will be doing the monitoring and reassessing of somebody, sure. That's what you do after you give medications.
Q. And what you want in a hospital -- not what you want, what you must have is appropriate staff for monitoring to have the education, training and demonstrated knowledge based on the specific needs of the patient population in at least the following areas, one of which is the same application and use of all restraints or seclusion used in the hospital including in how to recognize and respond to signs and physical and psychological distress, for example, positional asphyxia; correct?
A. That's a very long statement with a lot of parts to it. But basically if you have secluded or restrained or excited delirium

82

patients, you should be monitoring and reassessing them, paraphrasing the whole piece there. But, yeah overall the concept seems reasonable. I'd have to go through line by line to see if there are things that would be case by case, but the concept is reasonable.

Q. The concept of positional asphyxia is something that a trained hospital staff member should be looking for is unequivocal; correct?

A. Positional asphyxia, how are you defining that?

Q. Doctor, come on, don't fence with me on this. You know what positional asphyxia is, don't you?

A. I know different types.

Q. You've written on it?

A. Sorry, I apologize for upsetting you. I'm saying that there are a number of ways that people define positional asphyxia, particularly the hospital population, the elderly population with restraints and poseys and getting into positions within the gurney that can asphyxiate them. If you're referring to the class of law enforcement version where you put somebody on

83

their stomach and hobble them and hogtie them in a prone maximal restrain position, that really is not a theory that's out there for hospitals to be overly concerned with.

Q. Well, I'm using the definition that's used by the Center for Medicare and Medicaid Services, CMS.

A. Okay.

Q. Are you familiar with that?

A. With their definition I'm not. No.

Q. You work in an emergency department. Does your emergency department accept federal funds?

A. We do. Yes.

Q. And you don't know what is required of you in working in a hospital by the CMS that governs hospitals receiving federal funds; is that correct?

A. Your question was do I know the definition of positional restraint I think by CMS and the answer --

Q. That's not what I asked.

A. Okay. Please ask your question again.

Q. I asked you, you as a physician working

84

in a CMS regulated hospital do not know what the requirements are of CMS for chemically restrained patient observation; is that correct?

A. I know that we have certain requirements to follow and we have protocols that are set up to do that. But if you wanted me to go down a list of all of them off the top of my head, the answer would be no I couldn't give you that list off the top of my head.

Q. You do know the monitoring the physical and psychological well being of a patient who is restrained, including, but not limited to respiratory and circulatory status, skin integrity, vital signs and any special requirements specified by hospital policy associated with the one hour face-to-face evaluation is required by CMS, you do know that, don't you?

A. That's the practice that we tend to do in our hospital. So if it meets the requirements it would make sense. Right.

Q. Baptist Memorial Hospital did not do that with Troy Goode; correct?

A. They were monitoring him. They were --

85

they did a set of vital signs. They were reevaluating him. And there's an hour-to-hour reassessment. So he was assessed at that time.

Q. How did they monitor him?

A. They could listen to him. They would come back and they had somebody else also just watching his physical well being. There is no requirement --

Q. Who was watching his physical well being?

A. At one point there was a police officer -- well, the whole time there's a police officer in the room.

Q. What was his medical training?

A. I don't know specifically what his medical training was.

Q. What was his ability to detect respiratory distress?

A. His ability to detect respiratory distress would be a change in status. And he actually did that.

Q. Yes, when he stopped breathing. What was his ability to recognize agonal breathing?

A. He reported that basically that the

change in breathing status was very irregular. He reported that out to nursing. That would be agonal breathing.

Q. What medical training does that police officer have?

A. Again, I earlier said I believe most of them have a basic medical or basic life support training as part of --

Q. What medical training did Baggett have so that he was a trained qualified person to observe Troy Goode, Baggett?

A. I said earlier most police officers have a basic --

Q. I'm not asking you, Doctor. You're not answering the question. I'm asking you about Officer Baggett, not some police officer in San Diego.

A. Okay.

Q. What training did Baggett have?

A. I don't know.

Q. See that wasn't hard, was it? Is there a standardized definition of excited delirium that you can direct me to?

A. Not a standardized definition that

everybody has exact same language on, no.

Q. All right. Are there clear reasons why patients that you deem to be an excited delirium die?

A. Are there reasons why?

Q. Are there clear reasons why some patients that you deem to be in excited delirium die?

A. There really is no specific predictability of who -- if you have 10 in a room who might or might not die. There are certainly indicators postmortem and some premortem type things. But in general they're very difficult to tell who is going to go into cardiac arrest.

Q. Did you produce a work entitled Excited Delirium Redefining an Old Diagnosis?

A. I did write a paper I believe with that title. Yes.

MR. EDWARDS: Give us just one second, we'll locate that and we'll mark that.

(WHEREUPON, THE ABOVE-MENTIONED DOCUMENT WAS MARKED AS EXHIBIT NO. 5 TO THE TESTIMONY OF THE WITNESS AND IS ATTACHED HERETO.)

BY MR. EDWARDS:

Q. Doctor, you authored this paper or this report?

A. It looks like it. Yes.

Q. And sent it to an attorney in Rhode Island?

A. Or Connecticut maybe -- or is it Rhode Island? Yeah, I guess it was Rhode Island based on this. Sure.

Q. Okay. Now in this whatever this report, if you will, you noted that early recognition of cardiac arrest and prompt treatment will increase survivability immensely; is that correct?

A. What page are you on there, I'm sorry?

Q. Page 4.

A. I did write that yeah, for V-fib arrest. Correct.

Q. Okay. So that being the case, doesn't it follows, does it not, that you need a medically trained person who is competent to detect a cardiac arrest and observe?

A. Well, to determine a cardiac arrest does not obtain a medical degree of training. It's basically change in status.

Q. And a change in status might be

observed; correct?

A. A change in status is basically going from responsive to unresponsive or to stop breathing, that would be the change in status you're looking for and that doesn't require specific medical training to observe that.

Q. How do you know that Officer Baggett was even looking at Mr. Goode immediately prior to the change in status, how do you know that?

A. His testimony was talking about the fact that he was making noises, yelling, talking, whatever it was, and then there was a change in status, and so he went over to look at him. So he was hearing which is a part of the assessment. If he's yelling and talking and making noises, he is basically breathing and moving air in. When there was a change the officer reported that he went to assess him or take a look at him.

Q. Do you know that Officer Baggett was not on his cell phone with his girlfriend?

A. That was not reported. But I can't say because, I was not in the room.

Q. The best way to detect a change in cardiac status is by looking at rhythm strips;

correct?
A. A rhythm strip would if it was reading would show a change in status, that would be correct.
Q. And that would take a medically trained person to notice it on a rhythm strip?
A. To some degree depending on what the rhythm change was. If it went from the blipping QRS complex that we see it's a flat line, you know, that's common that people could recognize that without having to be medically trained when the alarms go off.
Q. In your hospital do you have any non-medically trained people monitoring rhythm strips?
A. Rhythm strips, no.
MR. EDWARDS: Did you mark that, Bobbie?
THE REPORTER: Yes, I did. It's No. 5.
MR. EDWARDS: Okay. For number six we are missing that. Will you hold that?
THE REPORTER: Yes, I will.
BY MR. EDWARDS:
Q. Doctor, is it also true that agitation and excited delirium is surprisingly common with

as many as 1.7 million episodes of agitation annually in excited delirium in the United States?
A. That didn't make sense, I apologize.
Q. Okay. Let me reask it because I'm advised that I left out in emergency departments is the frequency of excited delirium surprisingly common?
A. It does happen in emergency departments. Surprisingly common is a -- I guess a relative term.
Q. Well, yeah, but those are your words in the publication of psychiatric emergencies in pregnant women; correct?
A. Excited delirium in pregnant women, that I'm not sure is -- I'd like to see that publication before I comment on that part.
Q. Okay. Are there a number of things which can cause excited delirium?
A. That cause excited delirium, was that your question?
Q. Yes.
A. There are a number of things depending on how much you want to break them down. The two major categories are untreated psychiatric

disorders and typically stimulant drugs are the two big categories.
Q. Can hypoglycemia cause agitation?
A. It can cause agitation. Yes.
Q. Can heat stroke?
A. Cause agitation, yes.
Q. Can thyroid disorders?
A. Cause agitation, yes.
Q. Psychiatric issues you already mentioned; right?
A. Correct.
Q. And psychotropic drugs used to treat psychiatric issues in and of themselves can cause a condition which appears to be excited delirium; right?
A. It can cause agitation and symptoms that would be similar to some of the symptoms or characteristics of excited delirium.
Q. Right. And withdrawal from those drugs can also cause symptoms which appear to be attendant to excited delirium; right?
A. Again, similar characteristics can come from drug withdrawal. Yes.
Q. Emotional reactions from stressful

situations can cause agitate -- agitation appearing to be excited delirium?
A. It can have agitation with some characteristics that could be similar to agitated delirium.
Q. So it's fair to say there are a number of things which can reproduce a state of agitation which have characteristics to use your word of agitated delirium; correct?
A. Some characteristics. Yes.
Q. In the -- did you author a treatise entitled Guidelines For Investigating Officer Involved Shootings?
A. A book you mean or --
Q. Whatever. Is it a paper or a book, what is it?
A. The title is familiar. I need to look at -- I've authored many things. It sounds familiar though.
Q. Well, what's interesting -- here I'll show it to you. Can you see this?
A. Yes.
Q. It says Guidelines for Investigating Officer Involved Shootings, Arrest Related Deaths

and Deaths in Custody.
A. Yes.
Q. Darrell L. Ross, Gary M. Vilke. That's you, isn't it?
A. That is correct.
Q. And this strangely has a publication date of 2018. Can you explain that?
A. I do not know how publishers work. No, I do not. It just came out this past year.
Q. Okay. But this is a recent publication by you; right?
A. I'm one of the editors. Yes.
Q. One of the editors. Are the contents of it reliable?
A. As reliable as the authors and the editors, sure.
Q. Well, would you have included anything in your compilation which you deem to be unreliable?
A. That would not be the intent. No.
Q. You have testified in a number of cases that there are predisposing physical conditions to death in a person exhibiting characteristics of excited delirium; is that correct?

A. There are -- yes. There are certain predisposing conditions that would predispose them for having a cardiac arrest. Yes.
Q. And some of those predisposing conditions are what?
A. Cardiac enlargement, you know, ventricular hypertrophy, coronary artery blockages or bridging veins, bridging arteries, kidney failure, elevated potassium, things like that.
Q. Okay. Mr. Goode had which one of those?
A. I didn't see those -- any of those in Mr. Goode.
Q. Another thing that you wrote might be a predisposing condition to death in excited delirium was sickle cell syndrome; is that correct?
A. That can be a predisposing factor. Yes.
Q. And why is that?
A. Because it's -- under physiologic stress can cause the red cells to sickle and decrease blood flow to various organs.
Q. Did Mr. Goode have any pre-existing conditions which you would deem would have put him at risk for excited delirium death?

A. I think usually I refer to as increased risk for cardiac arrest that can be exacerbated by the excited delirium. But in his case I didn't see any other predisposing factors.
Q. Can respiratory diseases increase risk for death in excited delirium?
A. Respiratory diseases have not been shown to cause or contribute to cardiac arrest unless there is an acute event going on with it, meaning if he was having an acute asthma attack that would be a different potential issue complicating feature, but no. Other than that, the history of asthma in and of itself would not be considered a complicating predisposing factor.
Q. In the studies that you've done with Chan and Neuman on this subject you excluded participants that had a history of asthma; correct?
A. In some of the studies, yes. In others, no.
Q. In any of the studies that you knowingly include somebody with a history of asthma?
A. Yes.
Q. Which study was that?

A. I'd have to look specifically. It was either the pepper spray restraint study or the study with 25 and 50 pounds of weight on the back.
Q. Well, we don't have any involvement with pepper stray here, would you agree?
A. I agree.
Q. In this text this guidelines for investigating officer involved shootings, et cetera, you state "Whether this behavior and clinical presentation represents a true diagnosis or syndrome remains controversial in medical literature." Is that accurate?
A. There are people who argue different directions, so that would make it controversial. So that would be make it accurate, sure.
Q. All right. There is a lack of consensus in the medical community whether excited delirium even exist. You wrote that?
A. Again, if there are dissenting people who don't agree you don't have consensus. So that would be accurate.
Q. And you know that some medical examiners have asked why is it that the police are always present when somebody dies of excited delirium;

right?
A. I have heard that asked by at least one medical examiner.
Q. Well, the 2015 AAFS seminar brochure contains that statement in it. Are you aware of that?
A. Not particularly.
Q. What -- you note in your book which --
THE WITNESS: Bobbie, let's reserve a number for the doctor's book which we will maintain at our presence. It can be obtained -- it is available on Amazon as is everything else in the world for anybody who wants to get it.
(WHEREUPON, THE ABOVE-MENTIONED DOCUMENT WAS MARKED AS EXHIBIT NO. 7 TO THE TESTIMONY OF THE WITNESS AND IS NOT ATTACHED HERETO.)
BY MR. EDWARDS:
Q. You wrote in your book, Doctor, or you included in your book medical literature includes suggestions that excited delirium "is a fabricated diagnosis that was created to cover up police brutality." Did you include that in your book?
A. That is the opinions of some authors. And so for completeness I believe it was included

in there. Yes.
Q. You also note that many of the people who die from excited delirium or allegedly were restrained prior to being arrested and transported. Is that correct?
A. They're restrained I guess after being arrested and transported. Yes.
Q. And you also note -- you address the prone maximal restraint position which is the hogtie in your book; right?
A. There is writings on that. Yes.
Q. What physical evidence in this case is there that would in your mind allow you to rule out the cause of death as being excited delirium?
A. To rule out the cause of death?
Q. Yes, sir. What evidence, what exclusionary evidence is there that would allow you to rule out the cause of death as excited delirium?
A. There wasn't any that I could find. So he didn't have anything on autopsy that was an obvious other cause of death. The history mechanism were consistent with it. So I couldn't rule out excited delirium because I think it is

the cause of death.
Q. Low oxygen saturation is not consistent with a prone restraint in hogtie, is it?
A. A low oxygen saturation?
Q. Yes, sir. From your studies?
A. In the studies the position did not lower one's O2 saturation, that's correct.
Q. I just asked you about ruling out. Hyperthermia -- hyper.
MR. EDWARDS: It's hyper, Bobbie, not hypo.
BY MR. EDWARDS:
Q. Hyperthermia is invariably associated with excited delirium deaths; correct?
A. It is common in excited delirium deaths. It's not universal.
Q. Well, that's not what Dr. Stratton said from the LA studies, is it?
A. From his pre-hospital studies or his case series?
Q. The paper upon which you relied, the LA Studies where they had the study a group of 221 people with the characteristics of excited delirium. Dr. Stratton wrote hyperthermia is

invariably associated with excited delirium deaths; correct?
A. I don't recall that specific line. So I'd have to review the paper. But like I said, I know that hyperthermia is common in patients who have death from excited delirium.
Q. Mr. Goode was not hyperthermic?
A. There was no --
Q. Correct?
A. There was no documentation for core body temperature. But the attempted oral temperature was not elevated.
Q. Well, you know that Dr. Barnhart the forensic pathologist that did the autopsy specifically looked for hyperthermia; right?
A. In the medical records so did I. Yes.
Q. Well, she wrote in her report that he was not hyperthermic; right?
A. There was no evidence of hyperthermia because there's no other documented core body temperature. But I don't remember exactly how she worded it.
Q. And for that reason she did not put cause of death as excited delirium; correct?

A. She did not write it in her report. But she reported it in her deposition.
Q. Right. When prompted by Mr. Phillips she said oh, yeah that's what I mean by complications of LSD is excited delirium, that's what we're talking about?
MR. PHILLIPS: Object to the statements of counsel and the characterization of the testimony.
BY MR. EDWARDS:
Q. Is that what she wrote, Doctor?
A. Sorry. She said that it was excited delirium that she felt was the cause of death that was the complicating factor of the LSD.
Q. Then why didn't she just put excited delirium, that's what Dr. DiMaio said to do?
A. Based on her deposition she would have preferred to see a core body temperature had been documented and it wasn't. So she chose to document the way she did, but describe it the way she did in deposition.
Q. If a death in custody -- a death in restraint in custody occurs, should that be classified as homicide?

A. That is an area that I don't opine in. That's more of a medical examiner pathology area. So I don't give opinions on that topic of manner of death.
Q. You're opining on cause of death which is not your field of expertise; right?
A. I work with cause of death on a regular basis in the emergency department. I don't determine manner of death which is what you're asking me.
Q. You don't do autopsies; right?
A. That is correct.
Q. You've never had any training in forensic pathology?
A. Emergency medicine is one giant forensic evaluation of patients who come in altered. So we're seeing patients in the process of dying, immediately after dying, and resuscitated from dying. So we have a lot of evaluation skills with regards to causes of death. I just don't do manner of death.
Q. Do you agree that hyperthermia is a harbinger of a bad outcome in persons with excited delirium?

A. Yes. Somebody with elevated body temperature is at increased risk to going into cardiac arrest if in a state of excited delirium.
Q. Therefore, it would be standard of care for a hospital with a patient in perceived excited delirium to have their temperature monitored; right?
A. Ideally at some point during the evaluation a core body temperature would be obtained when feasible. Yes.
Q. Well, if hyperthermia is a harbinger of bad outcome in persons with excited delirium, you got to know what the temperature level is to know if they're in hyperthermia; correct?
A. When you can obtain a core body temperature that would be optimal. But like many other things in the excited state it's very difficult to obtain safely in acute agitated phase.
Q. Where in your book do you put all of these qualifications that you're throwing out now? If you can obtain them, you don't say that in here, do you?
A. That's --

Q. You say yes -- you say do this for a person in excited delirium. You list A, B, C and D. You don't say do this if you can A, B, C and D; correct?
MR. PHILLIPS: I object to your being argumentative with the witness and being abusive to the witness and you're not even giving him a chance to answer the questions you're posing.
MR. EDWARDS: Well, that's noted. Overruled.
BY MR. EDWARDS:
Q. Go ahead, Doctor.
A. The textbook there is for the evaluation afterwards. It's more based on the postmortem evaluation, but there is some treatment categories in there. But almost every paper that I can think of is qualified by when feasible or when possible or when safe, not just to stick a rectal probe in a jumping, bouncing, moving around guy and create the risk for more injury. You wait until they're sedated then you get a better evaluation.
Q. That's all that would have been required was a thermometer in the rectum?
A. You make it sound very easy to do in a

106

agitated patient. But that is how you would get a core body temperature ultimately.

Q. Doctor, one of the studies that you quoted in this book Guidelines for Investigating Officer Involved Shootings, et cetera, was one by Dr. Mash, M-A-S-H?

A. Okay.

Q. Right?

A. She is probably one of the references in that book, sure.

Q. And you quoted a two protein biomarker signature can serve as a reliable forensic tool for identifying the excited delirium syndrome at autopsy. Do you agree?

A. That is a paraphrasing of her research, but basically there are markers that she has identified in certain portions of the brain that are consistently different in patients who have signs and symptoms consistent with excited delirium versus other causes of death.

Q. And you believe based on those studies that you can rely -- determine whether a person has excited delirium on autopsy?

A. Based on her reports and publications if

107

the brain meets the certain criteria that she has studied over the years, it would be consistent with a diagnosis of excited delirium. And she's comfortable saying that that's what that is if all the clinical features match up.

Q. Was there any such finding in Troy Goode?

A. I am not aware that his brain was sent to a Deb Mash's lab in Miami.

Q. Are you saying that Dr. Barnhart was not competent to make that determination?

A. I didn't say that. I'm saying that this is a specialized test that as far as I know is only done at the brain center down in the university of Miami. So that every pathologist across the country doesn't do this study. And I'm not aware of any others that actually do. So Dr. Barnhart would fall in that category rather than what you described incompetence.

Q. Well, okay. So you don't have any evidence of the two protein biomarker signature; right?

A. Again, I wasn't aware that the brain was sent for that specific study to Deb Mash, so no.

108

Q. Now well you understand about prophamine transporter of proteins and heat shock protein 70 in the brain with person with excited delirium, you have any appreciation of that?

A. Just the concepts that the dopamine transported are down regulated and increases amounts of dopamine in the system which sort of revs up the system and that is thought one of the potential mechanisms of why the excited delirium physiologic characteristics develop.

Q. Okay. On autopsy in Mr. Goode there was no protein biomarker signature indicative of excited delirium found; correct?

A. Again, these are things that tend to be done at the specialized lab in Miami. So not that I'm aware of, no.

Q. Okay. Is the heat shock protein 70 a protein in the brain that accumulates in response to hyperthermia?

A. I'm not sure if it's in response to or introduces hyperthermia. It seems to be associated with hyperthermia.

Q. Okay. You agree that Troy -- there's no evidence that Troy was ever hyperthermic; correct?

109

A. There was no documented elevated temperature in Troy Goode.

Q. Do you have any undocumented evidence in your opinion that would indicate that he was hyperthermic?

A. The only documentation of physiology that could be consistent with it was some diaphoresis noted by the paramedics. But that was really the only temperature that was taken was an oral temperature that was reported to be tucked into a cheek which is obviously not a reliable core body temperature. So I didn't see anything that showed hyperthermia.

Q. Did you give an expert report in the case of Stetter, S-T-E-T-T-E-R versus Hanover Park?

A. I was involved in that case. Yes.

Q. Is that a case where you retracted your opinion that excited delirium was the cause of death?

A. I don't recall that.

Q. You were hired by the police in that case also; right?

A. I would have to review that. I don't

remember specifically who hired me, whether it was the city, the police. I don't remember who hired me in that case.

Q. Well, we're not talking about the police I'm talking about a governmental entity. Those are the only entities that you work for, right, for the police and the government?

A. Sometimes hospitals and individuals depending on what the lawsuits are. But in general it's the municipalities.

Q. Yeah, you're right. I should qualify my question. Civil rights cases you only testify for the police departments; correct?

A. I testify -- I think in the past number of years they're the ones who approach me for my opinions. And if needed I testify for them, yes.

Q. Let's see if we agree on this. Once an excited delirium patient is delivered to a hospital by the EMS, that patient becomes the responsibility of the emergency room physician and the hospital personnel; correct?

A. I mean, they certainly have a level of responsibility, sure. There's a hand off at some point.

THE WITNESS: And whenever you have a time for another five-minute break, I would appreciate it whenever is a good time for you.

MR. EDWARDS: Go right ahead. Let's take it.

THE VIDEOGRAPHER: Time off the record is 10:25 a.m.

(WHEREUPON, A BREAK WAS TAKEN AND THE PROCEEDINGS CONTINUED AS FOLLOWS:)

THE VIDEOGRAPHER: Time back on the record is 10:33 a.m. Counsel, you may proceed.

MR. EDWARDS: Thank you. Bobbie, would you hand the doctor Exhibit 4.

BY MR. EDWARDS:

Q. Doctor, I'm sorry, did you say that you were not familiar with this?

A. I may have looked at it at some point, but I don't recall the specifics of it.

Q. Okay. This is dealing with the study by Dr. Deitch about respiratory depression at chemical restraint; is that correct sir?

A. That is what they're looking for in the study looks like. Yes.

Q. And you said well respiratory depression

just means that they could go from elevated respiration to normal respiration; is that correct?

A. I said if you're defining that as respiratory depression, then that would be a form of depression. Yes.

Q. Except Dr. Deitch found that nearly half of the people after chemical restraint developed hypoxia, low blood oxygen; correct?

A. I haven't read this paper in detail to give you that answer, but I can check for sure.

Q. Nearly half. So assuming that that's correct nearly half of the people receiving chemical restraint go into hypoxia, that requires close monitoring after chemical restraint, does it not?

A. If there was hypoxia involved, monitoring would be part of the evaluation of that hypoxia, sure.

Q. Well, no, if chemical restraints result in nearly half of the people receiving the restraints developing hypoxia, just makes common sense that somebody trained medically needs to observe those people; correct?

A. Again, it depends on the case, the type of patient, the evaluation. But based on the study, they define looks like hypoxia is O2 sat of 93 percent or less for greater than 15 seconds. But as far as the patient population, the medications, and what was being used, and what was the indications for it, I haven't had a chance to better evaluate this paper to see applicability in this case.

Q. Would you agree -- well, Dr. Deitch defines hypoxia below 93 percent?

A. Ninety-three percent or less. Yes.

Q. And Mr. Goode the only reading we have on him was 90 percent; correct?

A. That's the only documented reading. Yes.

Q. And would you agree that hypoxia is rarely recognized by doctors unless the patient is being monitored by pulse oximetry?

A. Hypoxia is typically defined by pulse oximetry. So as far as if you're looking -- doctors don't recognize hypoxia. They tend to recognize signs or symptoms of ventilatory impairment or respiratory problems, but not

defining hypoxia.
Q. Well, the purpose of pulse oximetry is to see how much oxygen a patient is getting into the bloodstream; right?
A. How much of their red cells are oxygenated by oxygen. Yes.
Q. You can't tell that by looking at a person, can you?
A. You can't give a -- create a number that way, no. You can't look and say that's a 96 or a 92, no.
Q. I want to go back to the chemical restraints administered to Mr. Goode. We said one of them was the Haldol and the other was Ativan; is that correct?
A. Yes.
Q. And Ativan is used for what purpose?
A. It's a benzodiazepine anxiolytic and has sedation properties to help calm and relax people.
Q. Do you agree that the most important risk associated with use of Ativan injection is respiratory depression?
A. It's certainly one of the areas that we want to look into watch. It's very important to

watch for the ventilatory effects of benzodiazepines.
Q. Right. It says, and I'm referring to the -- I'm referring to the package insert. And it says accordingly, airway patency must be assured and respiration monitored closely; right? That's appropriate?
A. You want to make sure they have an open airway and that they're breathing. That's reasonable, sure.
Q. And that's done again by pulse oximetry among other things?
A. That is one way of doing it.
Q. And Mr. Goode was not monitored for his respiration; correct?
A. He was not on a continuous pulse oximetry.
Q. He was not monitored except during -- the only reading that they got on his pulse oximetry or by pulse oximetry was in triage at the hospital; correct?
A. That was the only pulse oximetry reading that I saw.
MR. EDWARDS: Bobbie, this is on the

exhibit list number 23 and if you would mark that -- on our exhibit list, if you would mark that as the next exhibit please.
MR. GASS: Is this Exhibit 8?
THE REPORTER: Yes. It is Exhibit 8.
MR. GASS: Can we have the title of it, please.
MR. EDWARDS: It's the package insert for Ativan.
MR. GASS: Tim, I'll tell you with the echo that's created with you being on a different audio, it's almost impossible to understand what you just said.
THE WITNESS: I'll say it. It says that Ativan (lorazepam) injection IV. It's reportedly the package inserts. Looks like it's typed out and it's approximately 20 pages.
(WHEREUPON, THE ABOVE-MENTIONED DOCUMENT WAS MARKED AS EXHIBIT NO. 8 TO THE TESTIMONY OF THE WITNESS AND ATTACHED HERETO.)
BY MR. EDWARDS:
Q. Doctor, do you agree that when a person is restrained in a hogtie that that triggers what laypeople call the flight or fight syndrome?

A. Restraint can cause a flight or fight syndrome. It doesn't always doesn't have to.
Q. Are you familiar with a study done by Dr. Barnett entitled Perceptions of supported and unsupported prone-restraint positions?
A. Sounds familiar but I couldn't go through the details of the study for you.
Q. Well, I'll get you a copy.
MR. EDWARDS: Bobbie, it's No. 11 on our list.
(WHEREUPON, THE ABOVE-MENTIONED DOCUMENT WAS MARKED AS EXHIBIT NO. 9 TO THE TESTIMONY OF THE WITNESS AND IS ATTACHED HERETO.)
BY MR. EDWARDS:
Q. Doctor, looking at this, does this refresh your memory that you've seen this paper before?
A. It vaguely familiar. But I don't remember the details of how they did the study.
Q. Okay. It was published in the Journal of Psychiatric and Mental Health Nursing. You see that?
A. Yes.
Q. Okay. Do you know anything about the

study or the results that were reached?
A. I would probably have to answer that no at this point.
Q. Okay. If you assume that two positions were studied. One involved prone position with arms straight out at the sides. The other involving a prone position with arms supporting the chest to avoid pressure on the chest wall okay. Are you with me?
A. Yes.
Q. Would you agree that both of those positions that I just described are less confining than being hogtied?
A. I mean, it's a different type of confinement for the supported prone position. But they are -- certainly have more movement availability in parts view one and two.
Q. Are you surprised that the results of testing those two positions showed that a supported position allowed for greater oxygenation where the chest was not pressed down upon the surface?
A. I would be surprised that the unsupported prone position had any changes in

oxygenation. So that's -- I would be surprised if there was a difference between the two to be honest.
Q. Okay. Have you seen the Baptist -- have you seen any of the Baptist protocols?
A. I have not. No.
Q. Would you -- assume that there is a Baptist protocol that warrants against putting any pressure on a patient's back who is in the prone position because of dangers to the patient. Would you agree or disagree with that protocol or with that policy?
A. Well, that seems very vague and generalized. I mean, if you're doing back surgery on somebody they're going to be prone and you're going to be putting pressure on them, so it seems like a odd specific language in a protocol.
Q. Well, if Baptist has that protocol, would you take issue with the assumption that by placing any pressure on the patient's back endangered the patient?
A. I would.
MR. UPCHURCH: Object to the form. This is David Upchurch.

A. I would have to look at the whole content. But I think patients are in the prone positions on a regular basis for various reasons, wound care, dressing changes, things like that. So there's going to be pressure. So I would be surprised if this protocol specifically said no pressure should be applied. That's really the extent I probably would comment on it right now.
BY MR. EDWARDS:
Q. Well, if it does you disagree with it; is that fair?
A. I would not agree or disagree. I would just say it seems to be a little bit broader than what need to be in a typical policy.
Q. Is LSD -- help me with this pronunciation, a sympathomimetic agent?
A. It is a stimulant more in the hallucinogenic family. But it also has stimulant properties.
Q. What's the basis for your statement that it has stimulant properties?
A. That's just what's known in the medical literature, in toxicologic literature.
Q. I want you to point me to the literature

that says that LSD is a stimulant?
A. I think it's sort of generalized known. I'd have to actually look to see where it's written down. I know it's there. I just -- it's sort of a more of a common knowledge than a area -- but I can certainly look for a reference if you'd like. But I don't have them off the top of my head.
Q. Well, actually, I researched it the most is a Dr. Nichols at UNC and he says it's not. Do you have any basis to disagree with Dr. Nichols?
A. That it doesn't have stimulants properties, I would definitely disagree with that. It does raise heart rate. It does increase breathing rate. Those are stimulant properties.
Q. I asked you if LSD is a sympathomimetic, that's S-Y-M-P-A-T-H-O-M-I-M-E-T-C, agent?
A. Sympathomimetic. It certainly has stimulant properties. That's what I'm sort of saying. Those are actually -- it's classified as a stimulant or a hallucinogenic with stimulant properties which would define it that is has having sympathomimetic components to it.
Q. Like to the extent of cocaine?

A. Not to that extreme. No.
Q. To the extent of methamphetamine?
A. Not typically, no.
Q. Those drugs are the ones most commonly associated with the syndrome you term excited delirium; right?
A. That would be correct.
Q. And as we said here today you can't point me to any authority that says LSD is a sympathomimetic agent; correct?
A. Or have stimulant properties, again, it's sort of common knowledge in the emergency department that we see patients with the stimulant changes associated with LSD. But, again, having to refer to a direct quote, no I'd have to look that up for you.
Q. Okay. That's all I ask. So your answer is no you can't tell me as we sit here today an authority that would support the proposition you're asserting that is that LSD is a stimulant?
A. That has stimulant like qualities, yes.
Q. Okay. Are you familiar with the work by Dr. Hick, Metabolic Acidosis in Restraint-associated Cardiac Arrest?

A. I have reviewed that in the past, yes.
Q. Do you disagree with Dr. Hick's conclusion -- well, what was his conclusion in that study?
A. I've read hundreds if not thousands of studies over the last 15 years. I don't remember his exact conclusion, I apologize.
Q. Do you agree with the statement in that study "continued combativeness despite restraints especially in the setting of sympathomimetic agents such as cocaine seems to be a marker for patients at higher risk for death regardless of pathophysiology." Do you agree with that?
A. I mean, patients who continue to struggle and struggle, I think you said despite restraints, certainly will continue to create acidosis and would be considered to be a higher risk than somebody who didn't, yeah.
Q. So then it follows that the appropriate medical response as you have said is to get the patient out of the flight or fight syndrome as soon as possible; correct?
A. I don't think I ever said that. I think I said to start the sedation process to try to

calm them.
Q. As soon as possible?
A. As soon as possible and safe. Yes.
Q. In this case you are aware that there was no effort to sedate Mr. Goode until well after he had arrived at the hospital, are you?
A. Effort if you're defining an order and administration that took time. But all the effort is to get him into a room, get him evaluated, try to get vital signs, that's all part of the effort to prepare to decide what sedation should be used, what medical therapy should be administered.
Q. Are you -- at your hospital do you use the emergency severity index triage flow chart?
A. The ESI scores. Yes.
Q. What is that for our benefit?
A. It's typically a way that nurses triage patients in certain categories based on certain criteria. Five being the least acute. One being the most acute.
MR. EDWARDS: Bobbie, before we go on this article by Dr. Hick is our No. 17 and should be marked as the next exhibit.
(WHEREUPON, THE ABOVE-MENTIONED DOCUMENT

WAS MARKED AS EXHIBIT NO. 10 TO THE TESTIMONY OF THE WITNESS AND IS ATTACHED HERETO.)
MR. EDWARDS: Then pull out our number 48.
(WHEREUPON, THE ABOVE-MENTIONED DOCUMENT WAS MARKED AS EXHIBIT NO. 11 TO THE TESTIMONY OF THE WITNESS AND IS ATTACHED HERETO.)
BY MR. EDWARDS:
Q. Doctor, is this the index you were referring to that you utilize?
A. This is what our nurses utilize in our department as well. Yes.
Q. It gives us five categories. Severity one being immediately the lifesaving intervention?
A. Correct.
Q. And it provides a step by step approach to clinical decision making?
A. It does look like it has a step by step sort of protocol or algorithm here. Yes.
Q. And it gives -- yeah, okay. It gives an algorithm of -- each step of the algorithm guides the user towards the appropriate questions to ask or the type of information to gather?
A. Yes. This looks like it's sort of an

overview of the indexes is what the chapter is defined as. But it gives some data to how to interpret certain aspects.

Q. Now are you aware that Baptist has adopted this ESI index?

A. Can't say I was necessarily aware of it, but it wouldn't surprise me.

Q. You would expect it though; right?

A. They usually some sort of a triaging score. It would not be unreasonable.

Q. Under the ESI protocol the first question is whether a patient requires immediate lifesaving intervention?

A. You're on Page 8 of this -- number eight on the second page of this; is that right?

Q. Yes, sir.

A. Okay. It's the Figure 2-1a ESI Triage Algorithm?

Q. Yes.

A. Okay.

Q. First question is whether the patient requires immediate lifesaving intervention; right?

A. That's what the box says. Yes.

Q. All right. Then it says a patient needs

immediate life-saving intervention if they require airway, emergency medications, or other hemodynamic interventions and/or any of following clinical conditions: intubated, apneic, pulseless, severe respiratory distress, SPO2 less than 90, acute mental status changes or unresponsive; is that correct?

A. That is what they list in the box on the right.

Q. And so Mr. Goode was at 90 percent SPO2; right?

A. Right. So that wouldn't qualify him based on that. Correct.

Q. What was his SPO2 after triage?

A. Well, this a triage algorithm. So at triage he was 90 percent. This is referring to an SPO2 of less than 90. But I don't know what the number was after his triage.

Q. Because he wasn't monitored?

A. Because he didn't have a repeated O2 sat done at that point.

Q. He was not monitored; correct?

A. Well, he was being monitored, yes. He was not on a cardiac or pulse ox monitor.

Q. Did Mr. Goode require immediate life-saving intervention under the ESI index?

A. It's an interesting index. I've never actually looked at it this closely because it's usually a nursing based treatment. And it must be more of an guideline than an absolute because acute mental status changes could be, you know, anybody who is acutely confused which is half of the drunk and drug intoxicated population in some ERs. So typically a level one would be an acute heart attack, acute stroke, you know, an amputation of an extremity. Typically won't consider him an immediate life-saving intervention type patient. But if you're looking at the words that are in here one could say oh he's an acute mental status change due to his LSD. That's a direct interpretation rather than a use of this which is what the intent is actually meant to be.

Q. And that being the case he required immediate life-saving intervention?

A. That's what I'm saying I don't think he meets the criteria as these triage scales are typically designed. But, again, I'm not an expert in triage scales or nursing triage.

Q. All right. Forget the ESI index. In your opinion did Mr. Goode require emergency medical intervention?

A. He required, you know, in the emergency department evaluation and then treatment based on what the evaluation is. He didn't require an immediate intervention until they had a chance to take a look at him. You know, not like a guy rolling in with a stroke or a stemi that's already predefined in the pre-hospital setting.

Q. Once he was evaluated and you have seen the evaluation, did he require intervention?

A. He -- I guess you'd say he required sedation or intervention, sure.

Q. He required supplemental oxygen also; correct?

A. I don't believe that he required supplemental oxygen at the time he was being evaluated. He required to be sedated and have a chance for a better reassessment.

Q. But the way -- did he require supplemental oxygen five minutes before he ceased breathing?

A. Did he require supplemental oxygen five

minutes before when, I missed that?
Q. That he ceased breathing?
A. I did not see any indication that he required supplemental oxygen at that point either.
Q. You don't know because there was nothing to tell you one way or another; correct?
A. Well, there was certainly the observation that he was still yelling and verbalizing and moving air in and out. Typically people who are hypoxic can't breathe or focus on breathing and not yelling and screaming. So there was some objective data that implied that he was moving air appropriately. But no O2 sat documented, that's the original question.
Q. And that observation you just mentioned came from a police officer?
A. Came from a police officer. Again, some person across the hall said he was making noises and was alive, and that other staff were hearing him yelling and disrupting the emergency department.
Q. Well, you need to go back and look at the deposition, Doctor, because when he was yelling breathing he was not -- he was still in

the decontamination room not across the hall?
A. I thought she heard him after she was across the hall and through the cracked door. So I apologize if I misinterpreted that.
Q. Do you agree or disagree a patient in severe respiratory distress or with an SVO2 of less than 90 percent may still be breathing but is in need of immediate intervention to maintain an airway and oxygenation status. This is the patient who will require the physician in the room ordering medications such as those used for rapid sequence intubation or preparing for other interventions for airway and breathing. That's from the ESI triage at Page 10. Do you agree or disagree with that?
A. You got me to the right page, sorry. Again, I think earlier we talked about the O2 sat as an absolute number has to be put into the clinical perspective. I see lots of patients who come in with O2 sats less than 90 percent who do not needs to be intubated or intervened because that's where they live. And so I think absolutes are not part of a standard thing. It's something to consider to assess. But I wouldn't agree with

it if it's an absolute the way this is written.
Q. So you disagree with the ESI severity index?
A. If the phrase that says a patient in severe respiratory distress or with an O2 sat less than 90 percent may still be breathing but is in need of immediate intervention to maintain an airway and oxygen status. Again, there are exceptions to that. So if there is further language that tells you to use your clinical judgment, this is not a replacement for them, I would agree with that. But if it's saying everybody who has an O2 sat less than 90 percent must be -- is in need of an immediate intervention, I would disagree with that based on my clinical experience.
Q. Don't you think it's a good idea if you get a reading of 90 percent oxygen saturation that you take the same course of action and give supplemental objection?
A. I think you need to look at the clinical scenario surrounding that number. One, do you believe the number if it's real. If it's real do they seem to have any respiratory issues? Are

they cyanotic? Are they having difficulty getting air in? Are they yelling and screaming? So you should take a look at that number with a clinical eye. And then if there's things that show that there might be a respiratory depression, they're not breathing well, they're cyanotic, then you might want to consider oxygen. But across the board I don't think there is a expectation that you immediately put on O2 for somebody who is agitated, combative and had an O2 sat reading that's 90 percent and may not even be accurate.
Q. You keep saying -- give me one fact, a fact, that says that disproves the 90 percent range?
A. Well, there's --
Q. One fact?
A. I'm trying to answer you. You're interrupting me again. I apologize for trying to be responsive.
Q. No, you're not trying to answer. What you're doing is you're guessing. I want a fact, an indisputable fact that the 90 percent reading taken by the nurse, that was Mr. Baker, was incorrect, one fact?

A. In the record there's a notation where there is a zero heart rate. We know that that fact is inaccurate, because we know he had a heart rate at that time. And so that the monitoring equipment was not accurately measuring, that could be a fact that would support the O2 sat not measuring correctly because the pulse is not matching up.

Q. Is that it? You say that because the heart rate is recorded as zero that that translates it into the O2 saturation is incorrect; is that your answer?

A. That's a fact that you requested. And so that would be consistent with the fact that an O2 sat monitor that's not picking up a heart rate correctly may not be picking up the O2 sat completely as well.

Q. The only fact that could be to disprove the 90 percent is another O2 reading of a different level; correct?

A. If it's obtainable that would certainly give you another point. But if you keep getting 90 percent and zero, you don't keep documenting that. You look at it it's not working and you'll

obtain the sat reading later when you have a more calm patient.

Q. Was that done?

A. I don't know if they checked it multiple times at the one time they were doing it or not. I don't recall the specifics of their attempt to get that sat.

Q. Was it done after sedation?

A. After sedation?

Q. Sedation.

A. That was the plan to get him reevaluated. But it was not done until he was actually more calm which unfortunately was the time he went into cardiac arrest.

Q. What is the gold standard for determining excited delirium in your opinion?

A. The gold standard? If we're clinically defining it, it's basically assessing the patient clinically, looking at the characteristics, looking at the predisposing factors, we talked about the drugs or psychiatric disorders, assessing for other possible causes, and then it's a clinical based diagnosis. Ultimately, if you want to get beyond that, you can do the Deb Mash

study with the brain if it happens to come to it. But from a clinical perspective it's basically looking at the presentation.

Q. Doctor, you have testified -- you've testified repeatedly that the gold standard was ABG testing?

A. For excited delirium?

Q. Arterial blood gas.

A. I know what that it. But it has nothing to do with defining excited delirium syndrome.

Q. What does it have to do with it? It deals with the amount of oxygen in the blood; right?

A. An ABG will give you a partial pressure of oxygen. Correct.

Q. That's what you have said is the gold standard for terming whether somebody is in asphyxia?

A. I don't believe I've ever said that.

Q. You don't?

A. Is in asphyxia, no. It's a measurement for hypoxia.

Q. Okay. Is it the gold standard for determining hypoxia?

A. It would be the gold standard over an O2 sat reading. Yes.

Q. Was an ABG ordered for Mr. Goode?

A. I'm assuming you mean prior to his cardiac arrest?

Q. Well, yeah. That makes sense.

A. I'm qualifying it because I can't remember if one was ordered later. I did not see an ABG ordered on Mr. -- certainly not performed on Mr. Goode prior to his cardiac arrest. I'd have to double check the orders to see if it was actually ordered.

Q. And if you had had the -- if Dr. Oliver had ordered that and you had that test result, we would know exactly what his oxygen saturation was, would we not?

A. If he had ordered it, it was obtained and completed correctly, we would have the partial pressure of oxygen, not his oxygen saturation. We would know what that number is. Yes.

Q. I'm sorry, I meant to ask we would know whether or not he was hypoxic?

A. We would have an objective measure for that. Correct.

Q. But we don't have that?
A. That is correct.
Q. And that's something that should have been done, correct, getting an ABG?
A. At the time of his acute agitation I would say no.
Q. After he registered a 90 on the pulse oximetry, an ABG would have been a real good idea to determine whether or not he was hypoxic; correct?
A. If you're talking about ideas versus reality, sure an ABG will give you the measurement. In the reality that's much harder to do than getting an EKG monitor or an IV placed, much more unsafe. So the practicality is it's absolutely crazy to try to order that in the acute setting like this.
Q. Well, let me read you a quote. And I quote, "After adequate physical control is achieved, medical assessment should be immediately initiated indeed because cardiopulmonary arrest might occur suddenly. EMS should be ideally present and prepared to resuscitate before definitive law enforcement measures are initiated

when possible. Although, the need for control measures may take precedence. Initial assessment should include vital signs, cardiac monitoring, intravenous access, glucose measurement, pulse oximetry, and supplemental oxygen, and careful physical examination." Agree or disagree?
A. Well, it should if it's feasible, right. That's after the police arrest somebody get him in control, that's a paramedic assessment. You're doing what you can do. It doesn't mean you're going to be successful in doing it. But it's certainly all things that should be considered based on the physiologic presentation.
Q. Who wrote that?
A. I don't know. It could be me for all I know.
Q. It was you. In the Journal of Emergency Medicine in 2012 you wrote that; correct?
A. I'd have to look at it. But it sounds like something I could have written, sure.
Q. And what I read to you is verbatim what you wrote about how a patient perceived to be -- that cardiopulmonary arrest might occur suddenly. That's certainly true; right?

A. I agree with that.
Q. And that these measures should be taken which include supplemental oxygen, pulse oximetry, cardiac monitoring, glucose measures. You wrote that; right?
A. I just said should be. It's not necessarily always feasible or able to be done, but sure. In a perfect situation you do all that.
Q. You know what, in your paper you didn't put that qualification in there. You said this is what should be done; right?
A. I didn't --
Q. You still agree with that?
A. I haven't read the whole paper and see where I qualified it other places or not. But, again, the word should is -- it didn't say must or requires or has to. It says should. And that's implicit that you have to be -- you have to be able to do it in order to complete that task.
Q. All right. Well, let's dissect that. You start off by saying after adequate physical control is achieved, that's what you're referring to, right, getting the patient under control?
A. Right.

Q. When the EMS arrived on the scene Mr. Goode was already hogtied and surrounded by four or five or six officers; correct?
A. That's what I'm trying to recall. But that sounds familiar that he was already hogtied when they arrived.
Q. He was not a threat to anyone; correct?
A. He still has a risk. But he's less of a threat being restrained than he was unrestrained.
Q. Well, if the officers wrote that Mr. Goode is no longer a threat he is secure, would you agree?
A. I agree that he --
MR. HUSKISON: I object to the form of that question.
BY MR. EDWARDS:
Q. Go ahead.
A. I agree that if they say he's secure I'd have to defer to the expertise in that and not a threat. Again, there's nobody who is a zero threat. But he's certainly not as much of a threat as he was before. He's appropriate to assess at that point.
Q. He was assessed at that point by Richard

142

Weatherford. Did you read that statement?
A. I have read the materials earlier. Yes.
Q. Okay. Did he receive cardiac monitoring?
A. He had a rhythm strip done by the paramedic, sure.
Q. He got intravenous access; right?
A. He did do that. Yes.
Q. He didn't get any glucose measurement?
A. I don't recall one done in the field. But I'd have to double check on that.
Q. Actually, and Mr. Weatherford did pulse oximetry but we don't know what it was; correct?
A. I believe he tried and couldn't get it to read.
MR. HUSKISON: Again, this is Berk Huskison. I object to the form.
BY MR. EDWARDS:
Q. What's the basis -- the report said he did an assessment and he put a pulse oximetry on. So what is the basis for your statement that he tried and could not get a reading?
A. That if he had gotten a reading he would have documented it.

143

Q. If you don't get a reading, you know that you didn't get a reading; correct?
A. I guess that would make sense. If you don't get a reading, you know that. Yes.
Q. That's what the EMS did throughout that report, if they couldn't get a reading they put no reading available or words to that effect. You've reviewed that; correct?
A. I'd have to refresh myself to the specifics of it. But they do document that way, yeah.
Q. But the pulse oximetry box was blank, didn't say couldn't get a reading; correct?
A. I'd have to relook at that specifically.
Q. Well, whatever it says it says, you agree with that?
A. Whatever --
Q. You don't have any information different than what's on the EMS report, do you?
A. Was documented is what's documented. Yes.
Q. All right. Your writing in the Journal of Emergency Medicine in 2012 says supplemental oxygen is to be given; correct?

144

A. If that's what it says there, sure.
Q. So that was violated by the EMS and the hospital; correct?
A. It says should and --
Q. No, it doesn't.
A. The word should was not in that sentence?
Q. Yes, you're correct. It is in the sentence. Should include vital signs. And so what does should mean?
A. Should means if you can do it to try and do it. It doesn't mean it's an absolute or a must. And if there are reasons not to do it for safety purposes or practicality, then that is what clinical judgment is for.
Q. Okay. And so if the EMS could not perform the assessment the way it should be done, then the hospital should do it; correct?
A. The assessment of the individual, you assess the best you can under the circumstances. Both parties EMS and hospitals should be doing the best assessment they can.
Q. Right. If the EMS -- for instance, somebody who has not been assessed by EMS then it

145

falls upon the hospital to do the assessment; correct?
A. That's the next level of care. The hand off will be there and they will do their typically own assessment whether it was done or not by EMS.
Q. Okay. And you agree that when a patient comes in in law enforcement restraints -- law enforcement restraints would never be used by a hospital personnel; is that correct? Hard restraints?
A. You're talking about handcuffs basically or like shackles?
Q. Yes.
A. By hospital who, employees?
Q. Personnel.
A. Or security. And many security officers carry handcuffs to use as necessary. They're not a primary source of restraint of somebody as a patient.
Q. I see. So are you not aware that CMS says that the use of law enforcement restraints are not considered to be safe appropriate health care restraint interventions by use by hospital staff to restrain patients?

A. You said health care, I think health care something else. You're saying that hospital employees should never use handcuffs basically. And I was saying that there are times where security who are hospital employees do use handcuffs, but not as part of patient care as I believe your CMS commentary is referring to.

Q. All right. Are you aware that -- you agree that the hospital is still responsible for appropriate patient assessment in the provision of safe appropriate care to its patient (the law enforcement officer's prisoner). You agree?

A. The hospital employees are going to assess and take care of the patient. It seems like a reasonable statement of what they do. Yes.

Q. In the notice of deposition we requested that you bring to this deposition any primary responses showing that LSD can cause excited delirium. What have you brought?

A. I have brought several articles. The one that I think we referred to earlier, the Ronald O'Halloran, Larry Lewman article from 1993 Restraint Asphyxiation and Excited Delirium.

Q. While we're on that subject, Doctor, and

I will let you go through all of them. On that O'Halloran article was it a reference to footnotes 26 and 27 for the proposition of LSD?

A. In what article? Twenty-six and twenty-seven out of what article?

Q. The O'Halloran article that you just pulled out?

A. The O'Halloran article does not have 26 or 27 references. I'm not following what you're asking me.

Q. Okay. Was the LSD reference by Dr. O'Halloran where the patient jumped out of a second story window was under the influence of LSD?

A. I'm rereading this because -- he jumped through a window. He cut himself. Is that --

Q. Yes. That was the LSD reference that Dr. O'Halloran made in conjunction with excited delirium?

A. Correct.

Q. Where the patient jumped out of a window and was basically killed?

A. Screaming obscenities, talking incoherently and spitting.

Q. And he was hogtied?

A. It took four adults to restrain him and transport him to the hospital emergency room. So he didn't die out of the window. He just got cut going through a window.

Q. And subsequently died?

A. He --

Q. I'm sorry, go ahead.

A. Yeah. He subsequently died, but not from the injuries from his jumping out the window.

Q. He was hogtied; correct?

A. He was handcuffed behind his back, soft restraints and hogtied. Yes, he was.

MR. EDWARDS: Okay. Let's mark that article, Bobbie, as the next one.

(WHEREUPON, THE ABOVE-MENTIONED DOCUMENT WAS MARKED AS EXHIBIT NO. 12 TO THE TESTIMONY OF THE WITNESS AND IS ATTACHED HERETO.)

BY MR. EDWARDS:

Q. Doctor, go ahead. What else do you have?

A. Sure. I have an article by Dr. Takeuchi, Ahern, and Henderson. Excited Delirium review.

Q. Yes. And what is it about that article that is responsive to our request showing that LSD can cause excited delirium?

A. They note that in their article that LSD can cause excited delirium.

Q. You will agree that's not a primary resource because it's not a primary article?

A. It's a primary article. It's not a case report if that's what you're asking. It's an article that references LSD as a etiology for excited delirium syndrome.

Q. It's anecdotal but it is not a case study as you say?

A. Case studies are just -- they report a case. It's not generalized science. It's just what somebody cites, publish and reports.

Q. What does Dr. Takeuchi say about LSD and excited delirium?

A. Basically that methamphetamine, PCP, and LSD have been reported in a few series, but by far the most prevalent drug of abuse found on toxicology screening was cocaine.

Q. Okay, yes. In the reference to the LSD is what he's reporting on somebody else's study or

150

case note?
A. It's referring to Dr. O'Halloran's paper. Yes.
Q. So we're going back to Dr. O'Halloran where the guy jumped out the window and then ultimately died?
A. Went through a window, yes but did not die from the window injury.
Q. The guy that was hogtied?
A. Correct.
Q. Okay.
MR. EDWARDS: Bobbie, mark that one if you will please.
(WHEREUPON, THE ABOVE-MENTIONED DOCUMENT WAS MARKED AS EXHIBIT NO. 13 TO THE TESTIMONY OF THE WITNESS AND IS ATTACHED HERETO.)
BY MR. EDWARDS:
Q. You have something else, Doctor?
A. I have the ACEP White Paper Report on Excited Delirium Syndrome published in 2009.
Q. Is that yours?
A. That is where I was with an expert panel that published this White Paper. I was part of that.

151

Q. And what is the reference --
MR. EDWARDS: Bobbie, go ahead and mark that.
(WHEREUPON, THE ABOVE-MENTIONED DOCUMENT WAS MARKED AS EXHIBIT NO. 14 TO THE TESTIMONY OF THE WITNESS AND IS ATTACHED HERETO.)
BY MR. EDWARDS:
Q. What is the reference in that White Paper to LSD?
A. I'd have to look if there's an actual reference. I'm not sure if actually referenced each individual aspect. But this is also part of the experience and expertise of the panel on patients -- people who also have had patients with LSD clinically excited delirium diagnosed but never wrote a case report up on it.
Q. Well, typically if physicians have an usual case they like to write it up; correct?
A. Some individuals do. But most doctors just treat their patients and go home.
Q. Well, but that's -- it enhance your professional stature to be push accomplished?
A. It does if you're in academic medicine, sure.

152

Q. Well, yeah okay. So can you tell us anything about the reference to the white paper to LSD and excited delirium?
A. Well, it just says cases involve stimulant abuse most commonly cocaine, though methamphetamine, PCP, and LSD have also been described.
Q. Okay. Described where?
A. Described -- well, in the literature we talked about O'Halloran. Although, this is not referenced in the actual paper directly, the O'Halloran paper is referenced in the list of papers reviewed by the task force. And it's also been seen by members of the task force but not necessarily written up as a case report because O'Halloran already wrote it up.
Q. So all you can tell us about LSD and excited delirium is the anecdotal mention by Dr. O'Halloran?
A. And members of the task force.
Q. Who?
A. Well, I've seen LSD induced excited delirium as one. But I didn't write up a case report because there was no need to write up a

153

case report at that time.
Q. Did the patient die?
A. That I don't believe so.
Q. Can you -- do you have anymore articles?
MR. EDWARDS: Do we mark that on, Bobbie.
THE REPORTER: We did mark that.
BY MR. EDWARDS:
Q. Do you have anymore?
A. Then I have the Wetli chapter excited delirium in Forensic Science and Medicine Sudden Deaths in Custody.
Q. And what was Dr. Wetli's reference to LSD?
A. It's probably going to be along a similar line if I recall, that it is a cause of excited delirium.
Q. That's a conclusion. What's the fact that supports the conclusion?
A. I'm looking at the paper to find exactly where that line was. I apologize for not having highlighted it. It says "Today, the entity is most common among chronic drug users of stimulant drugs such as cocaine and methamphetamine, and

sometimes LSD and phencyclidine abusers." But there is no reference noted with that comment right there.

Q. Okay. So that's hardly a primary source, is it?

A. Unless he has seen cases of it, he is writing it based on his own primary knowledge of it.

MR. EDWARDS: Mark that please, Bobbie.

(WHEREUPON, THE ABOVE-MENTIONED DOCUMENT WAS MARKED AS EXHIBIT NO. 15 TO THE TESTIMONY OF THE WITNESS AND IS ATTACHED HERETO.)

BY MR. EDWARDS:

Q. Doctor, your position that hogtying and places a person prone is without physiological effect; correct?

A. It's clinically insignificant physiologically.

Q. Okay. So the studies in which you have participated with Chan and Neuman found there was a diminution in respiration but it was clinically insignificant; is that right?

A. If you use measuring ventilation properties, pulmonary function testings you can

find small changes in that in different positions. But physiologically based on O2 sats and end tidal CO2 it was not significant or clinically significant.

Q. The first one of these studies that have generally been referred to as the Chan studies in which you participated was published in 1997?

A. That is correct. Yes.

Q. And that is the study that was done for the case of Price versus San Diego?

A. That was the case that initiated the desire to look into this area more carefully.

Q. And tell the jury who funded that study?

A. The funding to do the study was done by the County of San Diego.

Q. That was the defendant in the Price lawsuit; correct?

A. That was one of the defendants. Yes.

Q. And the Price lawsuit arose because a man in custody of the San Diego Police Department who was hogtied died; correct?

A. I can't remember if was police -- it may have been Sheriff's Department. But he did die in a hogtie position.

Q. So the study that was done by you, Chan, and Neuman was used in that litigation to defend the claim of the plaintiff; correct?

A. That's study was used during that litigation. Yes.

THE VIDEOGRAPHER: Counsel, there is five minutes left on the disc.

MR. EDWARDS: You want to switch it now?

THE VIDEOGRAPHER: Yes, sir, if that's possible.

MR. EDWARDS: Yeah, go ahead.

THE VIDEOGRAPHER: This concludes media number two. We're going off the record. The time is 11:30 a.m.

(WHEREUPON, A BREAK WAS TAKEN AND THE PROCEEDINGS CONTINUED AS FOLLOWS:)

THE VIDEOGRAPHER: Time back on the record is 11:35 a.m. This begins media number three.

BY MR. EDWARDS:

Q. Doctor, now we started talking about the 1997 Chan study and let's get a little background on that to make sure my understanding is correct. You and Dr. Neuman were working with Dr. Chan at

the time that the County of San Diego funded this study; is that correct?

A. Essentially. Dr. Neuman was the senior person on the study. Dr. Chan was the first author. He and I were I think chief residents when we first started the study and Dr. Neuman was one of our mentors.

Q. Okay. And the study so the jury will understand what we're talking about was on the effect of restraint position and positional asphyxia; is that correct?

A. Right. Basically looking at the effects on pulmonary function testing of patients in restraint positions.

Q. What the County of San Diego asked you to study was whether placing someone prone on their stomach in a hogtie could cause asphyxiation; right?

A. That's correct.

Q. Okay. And so that's what they funded. They funded this study and you and Dr. Chan and Dr. Neuman conducted the study; right?

A. Basically to objectively evaluate how the position affects pulmonary function values.

158

Yes.
Q. How many subjects, that is people, did you have in the study?
A. Did you ask how many subjects? You cut out there.
Q. Yes.
A. Okay. We had 15 subjects enrolled.
Q. People with asthma were excluded from that study?
A. In this study, yes.
Q. Were any of the people in that study under the influence of drugs?
A. Not the we're -- not in this study. No.
Q. And in this study the results were ultimately used to defend the City of San Diego which allegedly had caused the death of a hogtied prisoner; correct?
A. I think it was County of San Diego. And it was used during the trial I believe as data.
Q. Yeah. And who presented the data was Dr. Neuman; right?
A. Dr. Neuman was an expert in that case. Yes.
Q. For the County of San Diego?

159

A. Correct.
Q. The accused party; correct?
A. At least one of the accused parties, sure.
Q. And Dr. Neuman did not disclose that he had conducted the study with the funding of the County of San Diego; correct?
A. It's disclosed on the paper here. I don't know what he disclosed or talked about in trial.
Q. And, again, your conclusion was that the placing of somebody in a prone hogtied position while it did decrease to some degree the intake of oxygen, it was not clinically significant; is that correct?
A. We didn't say the intake of oxygen. We said that there were small measurable differences in pulmonary function testing volumes, but it did not impact oxygen or carbon dioxide levels.
Q. So bottom line to the layperson is the San Diego Sheriff's Department didn't kill this guy, Mr. Price or whoever, by putting him in a hogtie prone position bottom line?
A. Didn't cause asphyxiation.

160

Q. Right. But he died?
A. He did die. Yes.
Q. Okay. And you've conducted other studies that support that position through the years; right?
A. Correct.
Q. And it is also correct that you excluded -- well, first of all, Troy Goode would have never qualified for any of these studies, would he?
A. Using LSD, no. But if he did not use LSD he could have qualified.
Q. But you have admitted that all of the studies, however many there are, do not -- did not replicate conditions in the field of a person in excited delirium being arrested by the police; correct?
A. I think we acknowledged our limitation sections that you cannot exactly reproduce field situations including intoxication by drugs.
Q. So none of your studies -- how many have you done?
A. Probably in this area of research with positions and restraints about six I think.
Q. And none of those replicated the

161

conditions that Troy Goode was in at the time of his restraint and arrest; correct?
A. If you're talking about having LSD intoxicated individuals, you are absolutely correct.
Q. You can't recreate the stressors that somebody being hogtied and put in a prone position by police cause, can you?
A. Well, the stressors of the position if one feels there's stressors, yes. But the idea of being arrested and/or resisting and/or being on drugs, we can't reproduce that. No.
Q. Well, there are many more components to stressors on a person being arrested than just being hogtied and lying there prone; right?
A. There are other potential stressors, sure.
Q. And those -- you cannot replicate those conditions for purposes of your studies?
A. You can't exactly replicate certain aspects of it. Correct.
Q. Well, what you've -- you have said -- and actually you know Dr. Spitz?
A. I do know Dr. Spitz.

Q. You know Werner Spitz?
A. Werner, yes.
Q. He takes strong issue with your conclusions; correct?
A. It depends which ones you're referring to.
Q. Well, let me read you -- let me read you a bit from Spitz and Fisher's medical legal investigation of death. This is an authoritative treatise, is it not?
A. It is a published textbook.
Q. It's reliable, it's deemed reliable by forensic pathologists; correct?
A. Again, it's as reliable as the authors and the editors of that book.
Q. It's widely used by medical examiners?
A. I know the medical examiners do use that as one of their references, sure.
Q. Thank you. And Dr. Spitz in talking about the Neuman group, which would include you; right?
A. Yes.
Q. He says, in fact, the Neuman group and the conclusion of their study acknowledge that

they had not intended to duplicate the conditions under which restraint position deaths had occurred. Do you agree?
A. To reproduce all of the conditions -- certainly some of them like the position, but not all of the conditions, sure.
Q. He continues, deaths on gurney mattresses, cushioned car seats, or in a restraint position on the ground, and on the floor of police cars with a contoured surface may have increased the abdominal compression had not been addressed in their experiment. Agree or disagree?
A. Well, some of our experiments were actually done on hospital gurneys, so that would have addressed that concern particularly. But we didn't put people on the contoured floors of the back of a police car, that's correct.
Q. Well, let's talk about that. How long did any of your studies last?
A. Approximately 15 minutes I think was the longest duration of somebody in a restraint position.
Q. So if you're correct and I think you're right, but even if you're correct that Troy Goode

was restrained prone in a hogtie for an hour and a half, that would mean he was six times restrained as long as anybody in any of your tests; correct?
A. That would be a correct mathematical calculation, sure.
Q. And it's also correct that in your testing you gave people rest periods in between the measurements that you took; right?
A. The 15 minutes would be a constant 15 minutes in the position. There was no rest period there. But if you change position for a different measurement, there would be a rest period. Yes.
Q. Okay. And do you agree with Dr. Spitz that the international association of chiefs of police vehemently opposes the use of prone restraint stating that many deaths have occurred of individuals who while in police custody have been restrained in this position?
A. I haven't reviewed the material. I know that they recommend at different times of their publications putting people on the side position thinking that it might be more physiologically advantageous. But the reality is those were usually done prior to all the research that

supported the physiologically trial.
Q. Well, we'll talk about that. Actually there are a number of California EMS's which prohibit the hogtied prone position; correct?
A. I don't know if they prohibit the use by paramedics. I don't know if they actually prohibit the use by law enforcement because that would be outside their jurisdiction.
Q. Well, of course. But the reason -- and Orange County is one; right?
A. That prohibits EMS providers from putting somebody in a hogtied position?
Q. Yes. Transporting via hogtied prone position?
A. That I don't know. I'd have to look at their protocols whether they're allowed to transport or not.
Q. Okay. We'll see if we can pull those for you. Now, Doctor, you noted in the first study Restraint Position and Positional Asphyxia, Chan, et al 1997, "It is possible that our subjects -- that had our subjects remained in a restraint position for a longer period, we may have detected more significant alterations in

166

respiratory physiology." Is that correct?
A. You didn't give me a location. I'm trying to find it.
Q. 585.
A. That looks like what we have written there. Yes.
Q. Now explain that to the jury what that means, what that sentence means?
A. Sure. It means that when you write a research paper and publish it in a peer reviewed journal, you have to put down limitations of the study, and it's part of the intellectual honesty. So this really is just referring to the fact that we looked at patients out to 15 minutes. And that's the limitation of the study. Could there be changes further out, could be. But based on the data here if you're asking me to interpret it, then the answer would be no. But the paper is written with the limitation of the 15 minute window.
Q. What you're saying is that you in one study -- other studies were for shorter periods of time; correct?
A. There were other studies with shorter

167

periods of time. Yes.
Q. So the longest period would be 15 minutes and Troy Goode was at least six times that; right?
A. Yes. Based on the hour and a half it would be six times the length.
Q. And what you're acknowledging in your study is that if you left somebody hogtied and prone for a longer period, there may have been significant alterations in respiratory physiology; correct?
A. Anything is possible. That is what we're putting in there. Correct.
Q. And significant change in alterations in respiratory physiology means ability to breathe; right?
A. Significant could be statistically significant, meaning you would still see -- we saw significant changes in the short period of time and our change is not clinically significant. So could there be more changes, there could be. It doesn't mean it would actually impact the ability to breathe or ventilate.
Q. You don't know, you never tested for a

168

long period -- let me ask this. Did you ever test for longer than a 15 minute period?
A. Nothing that was ever published. Correct.
Q. Did you ever test, publish anything that would apply directly to Troy Goode's situation of an hour and a half restraint hogtied in prone position?
A. We never had somebody with that duration. No.
Q. You also noted as a qualification to this study "It is unlikely that this period of exercise would stimulate all of the physiological alterations that may occur with struggle and agitation. In addition, we did not reproduce the effects of trauma or psychological stress that often occur with apprehended individuals."
Did you write that?
A. Yes, we did.
Q. Is that accurate?
A. That's a fair statement based on the limitations of the study.
Q. Now the studies that you relied upon and have relied -- you rely upon in this case and have

169

relied upon in all of the cases from Connecticut to San Diego and points in between, are your studies with Chan and Neuman; correct?
A. They are part of it. And depending on the time -- they're part of my repertoire of articles I review and rely on.
Q. There are a great many articles by professionals in the field of forensic pathology that disagree with you. You agree with that?
A. There's a great number? I don't think that there's other studies that have disagreed, at least not in the great number that you refer to.
Q. Okay. Well, that's probably a bad word, you're right. You are aware of studies that have been performed in the prone position by people who weren't employed as expert witnesses in court to exonerate police; right?
A. To my knowledge, sure I don't know what all their backgrounds are. But I know studies were done by other individuals.
Q. Are you familiar with the Edgcombe article Anesthesia in the Prone Position 2008?
A. Edgeco?
Q. Edgcombe.

A. I'd to look at it again. Is that one that was used in one of the depositions? I'd have to look in --

MR. EDWARDS: Bobbie, it's number eight on our list.

(WHEREUPON, THE ABOVE-MENTIONED DOCUMENT WAS MARKED AS EXHIBIT NO. 16 TO THE TESTIMONY OF THE WITNESS AND IS ATTACHED HERETO.)

BY MR. EDWARDS:

Q. Doctor, have you seen this paper before?

A. I have seen it at some point. Yes.

Q. For the benefit of us all, anesthesiology is another area of medicine which is concerned with the position in which a patient is placed; is that correct?

A. They do deal with patient position, yes absolutely.

Q. Because it can be dangerous to put somebody under anesthesia when they're prone; right?

A. That's a very broad statement. You have to be careful about fluid volume statuses, underlying medical conditions, and position can change that. So you want to be aware of all the

circumstances.

Q. So your answer is on a broad brush statement is the position that a person is in when under anesthesia can be dangerous; correct?

A. It can have physiologic changes that you have to manage. I wouldn't call it dangerous if that's the idea of evaluating and planning?

Q. You agree when moving a patient into the prone position an almost universal finding is a decrease in cardiac index?

A. Where are you reading that at, I'm sorry?

Q. 165.

A. Thank you. They certainly write that in there, yeah.

Q. And cardiac index measures the amount of blood a person's heart is pumping divided by their body size; correct?

A. That is the way the measurement is. Yes.

Q. Okay. And continuing on, the problem of IVC -- what is IVC?

A. The inferior vena cava.

Q. And that's -- is that an artery that

pumps blood, that the heart pumps blood through?

A. It's a vein that returns blood to the heart.

Q. A vein, okay. And Dr. Edgcombe notes that the problem of IVC obstruction is well recognized in the prone position. And that's at 167.

A. It says the problem with IVC obstruction is well recognized and various methods have been attempted to reduce blood loss including use of local anesthetic infiltration, spinal and epidural anesthesia, and deliberate hypotension. So he does make that comment in the full sentence like that.

Q. Okay. And so to put things into perspective, this concept of the dangers of hogtying in a prone position all interplay with heart functioning in your opinion; is that correct?

A. The data has been measured on it has not shown that cardiac output, blood pressure, or heart rate are impacted by prone position, which would be the functionality of the heart.

Q. So Mr. Goode had no problems with his

heart to begin with, we talked about that; correct?

A. Nothing that was noted on the autopsy. Correct.

Q. And so Dr. Edgcombe, the anesthesiologist, is saying that turning a patient to the prone position has a measurable effect on cardiac -- cardiovascular physiology, the most consistent of which is a reduction in cardiac index. And that's at 168.

A. It looks like either -- the best I can tell here without having read the whole paper, his reference seems to be something he's referring to 16 patients, reference number 16, which is basically changes with prone position during general anesthesia. So anesthesia itself had some impact on cardiac function. So without going through details of it does it apply in this case, it's hard to say.

Q. Okay. Are you looking -- which study are you looking at please?

A. The Edgcombe, Anesthesia in Prone Position paper.

Q. Well, let me ask it this way, I'm sorry

174

we had a glitch. Dr. Edgcombe is taking the position -- he's an anesthesiologist and he is written that placing somebody in a prone position affects the heart; agree or disagree?

A. He reports that we talked about earlier when moving a position into a prone position an almost universal finding is a decrease in cardiac index, with the next paragraph talking about patients who are under anesthesia.

Q. Okay. Right. So as a general proposition would you say you take issue with Dr. Edgcombe, an anesthesiologist?

A. As I said earlier, I'd have to look at the paper that it was referencing there. But it's 16 patients that are under anesthesia when the positions were changed. And I don't know if these are 90-year-olds with very stiff vessels or 80-year-olds, or they're more applicable to younger people with more cardiovascular responsiveness.

Q. Okay. Well, look at 168. Dr. Edgcombe says: Obstruction of the IVC, the inferior vena cava is a well recognized complication of prone positioning and is exacerbated by any degree of

175

abdominal compression, leading to decreased cardiac output and increased bleeding, venous stasis, and consequent thrombotic complications. Do you have an opinion one way or another on Dr. Edgcombe's assertion?

A. I'll break it down because it's a long sentence if that's okay. Obstruction of the IVC is a well recognized complication of prone positioning and is exacerbated by any degree of abdominal compression. You know, these are cases in which you're operating on people and pushing down. It's a different position because you're actually doing work that creates bleeding disorders or clotting features by adding surgical components to it. Leading to decreased cardiac output --

Q. Excuse me, let me interrupt you, Doctor. Where in that statement is there any statement about a surgical component or pressure on the back? Where?

A. In that very statement, there's nothing in that very statement. But he's referring to surgical procedures with anesthesia.

Q. Okay. Go ahead. What else do you have

176

to say?

A. Then it says leading to decreased cardiac output and increased bleeding. As far as decreased cardiac output, that's been measured in non-surgical patients and has not been shown to be affected. Again, I'm not sure what he is referencing to get that information. But if it's older patients with cardiovascular stiffness, more calcifications, that is certainly a possibility. But in younger otherwise healthy patients similar to Mr. Goode, that data hasn't been demonstrated in the work that I'm aware of. I've --

Q. Let me ask you something. Go ahead, sorry.

A. I was trying to finish this, this is a long thing. The increased bleeding, venous stasis and consequent thrombotic complications, again, I'd have to read studies about that how the position would actually lead to increased bleeding unless you're referring to operating on somebody and making cutting aspects that would bleed more. Otherwise, putting somebody in a prone position shouldn't make somebody bleed.

Q. Don't you think it's a good idea

177

medically that if there's literature out there that is considered to be peer reviewed which states that placing somebody -- a patient in prone position can affect his heart, that it is wise to avoid prone positioning?

A. Well, it says that they also affect their bleeding. And I don't think that's a true fact. So just because it's peer reviewed doesn't mean it's applicable to all patients of all types.

Q. Don't you think that when there is reliable literature in medicine saying that the prone position can affect the heart, particularly the inferior vena cava, it is a good idea to avoid placing people in the prone position?

A. I would disagree.

Q. Yes or no?

A. I just said I disagree.

Q. You disagree?

A. Thank you.

Q. You disagree with Dr. Edgcombe. All right.

A. I disagree with your statement.

MR. EDWARDS: Bobbie, pull out number nine, please.

(WHEREUPON, THE ABOVE-MENTIONED DOCUMENT WAS MARKED AS EXHIBIT NO. 17 TO THE TESTIMONY OF THE WITNESS AND IS ATTACHED HERETO.)
BY MR. EDWARDS:
Q. Doctor, are you familiar with this article by Dr. Dharmavaram, et al, from the Loyola University Medical Center entitled Effect of Prone Positioning Systems on Hemodynamic and Cardiac Function During Lumbar Spine Surgery: An Echocardiographic Surgery?
A. I have seen the study. Yes.
Q. Study, I'm sorry. Okay. Now let me ask you about some of his conclusions or their conclusions. Hemodynamic changes. What are hemodynamic changes by the way?
A. Hemodynamic refer to blood based changes, usually referring to blood pressure or heart rate.
Q. Okay. And blood of course is what carries the oxygen to the organs, in particular the brain; right?
A. That's one of the organs that is perfused. Yes.
Q. And the brain is -- oxygen is a oxygen

organ, if you will?
A. It certainly likes oxygen. Yes.
Q. And Dr. Dharmavaram and his colleagues concluded hemodynamic changes occur from supine to prone position. And that's at 1392. Do you agree or disagree?
A. I'm taking a look at what they say. So under key points it does say hemodynamic changes from supine to prone positioning.
Q. Agree or disagree?
A. That's what it says there.
Q. Yes. In your professional opinion do you agree or disagree with this conclusion, this finding?
A. Under the results they note that there are no intergroup differences in demographics, fluid deficit, baseline hemodynamics or differences from supine to prone position were noted. So it seem to have a contradiction in the results compared to their key point.
Q. I see. So in so far as this particular paper is concerned, you find a basis to disagree with those conclusions?
A. I'm just saying what they wrote in their

paper. And it seems to contradict to some degree this key points.
Q. All right.
MR. EDWARDS: Bobbie, would you pull out number 10, please.
(WHEREUPON, THE ABOVE-MENTIONED DOCUMENT WAS MARKED AS EXHIBIT NO. 18 TO THE TESTIMONY OF THE WITNESS AND IS ATTACHED HERETO.)
BY MR. EDWARDS:
Q. Doctor, are you familiar with this Barnett study out of Great Britain?
A. Yes. I have seen this before too.
Q. And can you tell us if you disagree with the conclusions?
A. Their conclusions are their conclusions. I'd have to re-review the details of their study. But looking at -- I'd have to review the details of their study to say whether I truly agree or disagree. There may be some small changes that are there that would be agreeable but may not be physiologically impactful.
Q. Well, let's look at their conclusions. And I quote "This study is shown that all three of the prone restraint positions tested imposed

pressure onto the anterior chest wall and restricted lung function. You agree or disagree?
A. I mean they're laying on their stomach, so there would definitely be some pressure on the chest wall. That's just implicit with the position. As far as their commentary on restricted lung function, that's what I'm trying to look at what they did and what their data were. And based on the data they have in Figure 3 compared to a seated position, there are some mild changes that you can measure in the three different positions in pulmonary function testing with the caveat that assuming they had done the pulmonary function testing following American Thoracic Society specifications. So if that's the case, there are some small changes that they measure.
Q. I didn't ask you this but a person -- is there a ACLS protocol for addressing supraventricular tachycardia?
A. There are ACLS protocols for addressing narrow complex tachycardias.
Q. Were any ACLS protocols implemented for Troy Goode?

182

A. Yes.
Q. Which one?
A. The pulmonary -- or pulseless electrical activity, the V-fib protocols were implemented in him.
Q. Post coding?
A. Well, yes. That's when you use it.
Q. If a patient presents to a hospital to an emergency department in supraventricular tachycardia, should ACLS protocols be implemented?
A. If they present in true SVT, then you would treat them as per SVT protocols. One of them is the ACLS algorithm for narrow complex tachycardia.
Q. Okay. Is there an ACLS protocol for tachyarrhythmia?
A. Tachyarrhythmia is the general category, then they break them down I believe to narrow and wide complexes.
Q. Okay. Is there a protocol for tachyarrhythmia?
A. I think I just said I think there's an overall protocol. But they tend to break them down to the two major categories; tachyarrhythmia

183

with wide complex and tachyarrhythmia with narrow complex.
Q. Did Troy Goode present with either wide -- or what was the other complex?
A. Narrow complex.
Q. Narrow. Did he present with either of those?
A. He had a narrow complex tachycardia. He had a sinus tach.
Q. Was the ACLS protocol implemented?
A. To treat the underlying issue for that, yes by using sedation. You have a tachyarrhythmia that is sinus tach, you would treat the underlying etiology.
Q. The ACLS protocol calls for chemical sedation?
A. Typically if it's a sinus tachycardia it falls outside of the true treatment portions of the ACLS protocol. And it falls under the evaluation portion which is identifying the cause and treating that cause.
Q. Okay.
MR. EDWARDS: Bobbie, would you pull out number 49, please.

184

(WHEREUPON, THE ABOVE-MENTIONED DOCUMENT WAS MARKED AS EXHIBIT NO. 19 TO THE TESTIMONY OF THE WITNESS AND ATTACHED HERETO.)
MR. GASS: Tim, it would have been nice if there was copies of all these exhibits provided to all of us today.
MR. EDWARDS: Well, I don't know who you think is going to do it. I'm not going to do it. If you want to see these things, Rick, come to the deposition.
MR. GASS: Tim, the rule provides that if you're going to have exhibits at a deposition you're suppose to have copies. It's common courtesy and custom to have copies for opposing counsel.
MR. EDWARDS: We do have copies. We have them sitting here in Memphis and we have them there in San Diego. You could have gone.
MR. GASS: All you had to do was send us PDFs of them and everybody would have had them.
MR. EDWARDS: I am not going to go out abounds for you because you can't get your ass to a deposition, period.
BY MR. EDWARDS:

185

Q. Okay. Doctor, do you have the adult tachycardia with pulse algorithm?
A. I do. Yes.
Q. You do?
A. Yes.
Q. Okay, sir. Now number one, step one, these are sequential; right?
A. Correct.
Q. So step one is assess appropriateness for clinical condition, heart rate typically equal to or greater than 150 beats per minute if tachyarrhythmia. Did I read that correctly?
A. A heart rate typically greater than or equal to. Yes, you did.
Q. And then you go to step number two, identify and treat underlying cause. What does that mean?
A. That means if it is -- the tachyarrhythmia is a tachycardia caused by drugs caused by sepsis, caused by fever, caused by shock, caused by trauma, you would treat those causes and use your clinical judgment and start the treatment that would be indicated for either of those types of etiologies.

Q. Okay. And it says maintain patient airway; assist breathing as necessary; right?
A. Yes, it does.
Q. And how do you do that?
A. Basically if they're breathing and they're talking and yelling, you take a look at their airway and make sure it's patent.
Q. Okay. And then you give supplemental oxygen if hypoxemic; right?
A. That is listed there as an option. Yes.
Q. And how do you determine if a person is hypoxemic?
A. Either by an O2 sat monitoring or by a blood gas.
Q. Okay. Well, we know he didn't get a blood gas. We got an O2 reading of 90 percent. Was Troy hypoxemic?
A. I would not have started oxygen on him based on that O2 sat reading. So I would not define him as hypoxemic. He has a low normal O2 sat.
Q. Low normal? What -- normal is 95 and above; correct?
A. No. Normal is -- that's -- the mid

range anywhere from 93 to 97. Sort of up higher is higher. And then 90 to 92 is sort of a low normal. Below 90 is what most people will define as hypoxemic. But you'll see different papers referring to different levels depending on how they want to look at the data.
Q. Give me one authority for the proposition that 90 is normal -- low normal?
A. There are lots of references out there that --
Q. Give me one?
A. We've had numbers of studies we talked today that talk about O2 sats greater than 90 percent or 90 percent or greater as being considered normal, below that being hypoxic as defined in their method sections.
Q. Show me one. We had one that said 93, if it was at 93 you had to start supplementing. The EMS from Mississippi say 90 is mild hypoxia requiring supplemental oxygen. You disagree with that?
A. If that's what it says, I'm not going to disagree with what they say.
Q. And it says cardiac monitor to identify

rhythm, monitor blood pressure, and oximetry. What's involved in a cardiac monitoring?
A. Cardiac monitor is placing leads onto the body to try to measure the electrical activity of the heart.
Q. And that was not done?
A. It was done in the field. It was not done at the hospital.
Q. It should have been done in the hospital?
A. At some point it should have been done, yes. At some point after he calmed down I think it would be the time to place the cardiac monitor. Yes?
Q. Are you familiar with the Parkes and Carson entitled Sudden death during restraint?
A. I'm sorry, who is the author on that?
MR. EDWARDS: Bobbie, this is our number 13.
(WHEREUPON, THE ABOVE-MENTIONED DOCUMENT WAS MARKED AS EXHIBIT NO. 20 TO THE TESTIMONY OF THE WITNESS AND ATTACHED HERETO.)
MR. GASS: Can you give us the titles and the names of Exhibit 18 and 19 please.

THE WITNESS: Eighteen is the physiologic impact of upper limb position in prone restraint. The lead author is Richard Barnett. Number 19 is the acute -- I'm sorry, the Adult Tachycardia With a Pulse Algorithm put out by the American Heart Association in 2015.
MR. GASS: Thank you, Doctor.
THE WITNESS: You're welcome.
BY MR. EDWARDS:
Q. Are you -- my question was, Doctor, have you seen this before?
A. I have seen this before. Yes.
Q. They did five positions? They tested five positions' right?
A. I'm just refreshing myself with the details of it. But that's what it looks like. Yes.
Q. Okay. And position five was the one close -- was similar to the hogtied position?
A. I'm sorry for the delay, I'm just looking for the methods and they didn't define it. But looks like they have standing -- I'm sorry, there's pictures further back. Position two flat on the floor, supine. Front on the floor, prone.

Number four was prone restraining staff applying body weight to torso sort of a chicken wing. And five is arms and legs restraint in a flexed position. So the four leg lock would be the position there. And that's probably you're right the closest to the position of Mr. Goode.

Q. Okay. And then Dr. Parkes and Carson conclude that that position you just described caused the greatest change in forced vital capacity at 137. Is that correct?

A. Based on their graph Figure 1 that's showing the FVC as a percentage of position one it is the biggest change, 70 percent of that. So I'm just looking at their methodology. So they measure theirs with a single force maximum exhalation followed by inhalation. That would not be standard practice. That's basically -- that's not meeting American Thoracic Society measurements for reproducibility. But that gives that limitation because it doesn't mean that they gave a best effort in these positions. They are reporting some changes in the FVC and the FEV1 in Positions 4 and 5, the ones with the hands behind the back.

Q. In fact, they conclude that restraint positions should be considered a risk factor for sudden death during restraint and that some restraint positions are demonstrated to present a greater risk to the patient and others. And that's at 141.

A. They do write that down there. Yes.

Q. You take issue with that?

A. I take issue with their methodology. I think I already said which can would impact the results and therefore the conclusions from that perspective. And, again, sort of the difference between measurable differences and physiologic differences. They didn't measure end tidal CO2 or O2 sats in these individuals nor checked blood gases. So we don't know if there's any changes in hypoxia or hypercarbia in this population to say that there's actually a risk factor for sudden death. I think that's why I think it's a leap to go to that level.

Q. One of the patients in the Parkes and Carson study there was a 57 percent reduction in FEV1 while restrained in the hogtied position? And that's at 140.

A. Right.

Q. Is that correct?

A. Based on their methodology that I sort of quickly looked at --

Q. I think you said --

A. -- it was a single recorded measurement or actually to have valid data you need to have reproducibility of at least three within 10 percent. So if they had a bad FEV1 there because it wasn't their baseline but it was just a bad push and they try to reproduce it, you may have seen different numbers. So without the reproducibility this data really isn't -- it's not scientifically valid. It is what it is. But you can't interpret and say that the 57 percent was real because it wasn't reproduced at least twice.

Q. Don't you think Dr. Parkes and Carson thought it was real when they recorded it?

A. I don't know what they were thinking when they were doing their study. But if they designed it correctly they should have had American Thoracic Society measurements or a local society which is basically reproducing the testing parameters to demonstrate that they are valid

numbers.

Q. Are you familiar with the Roeggla, R-O-E-G-G-L-A, study on positioning and its effect on respirations that came out of Austria?

A. Respiration and cardiovascular parameters, yes I'm familiar with that one.

Q. And that study --

MR. EDWARDS: Bobbie, that's number 16, would you pull that out.

(WHEREUPON, THE ABOVE-MENTIONED DOCUMENT WAS MARKED AS EXHIBIT NO. 21 TO THE TESTIMONY OF THE WITNESS AND IS ATTACHED HERETO.)

BY MR. EDWARDS:

Q. Now Dr. Roeggla and his colleagues I think it was at the University of Vienna concluded that the hobble restraint had a 40 percent reduction in forced vital capacity, is that correct, sir?

A. Looking at their data. Where do you see the 40 percent? This is the mini version, so I'm really straining the eyes to take a look at it. But where are you seeing that 40 percent listed?

Q. If you'll look under the section on the second page called results it says mean FVC,

194

that's forced vital capacity; right?
A. Yes.
Q. Decreased by 39.6 percent?
A. Correct.
Q. What is forced vital capacity?
A. That's the amount of air you can blow out over time.
Q. Why is that -- that's what is recorded when you do a pulmonary function test; right?
A. That is done through pulmonary function testing. Correct.
Q. And what is the significance of a almost 40 percent reduction in forced vital capacity?
A. Same issues with this paper as the other one, they didn't reproduce their data. They only had six subjects and they misused their other equipment, the Portapres device looking at cardiac output. So they -- we know that they misused their devices. So it made it very difficult to interpret the data here. But a 40 percent increase -- or decrease if it was factually real would be notable. But there's never been a study out there that ever saw anything close to these numbers. And when you look at the way they

195

presented their data it implies that there is something physiologically wrong with the way they measure things.
Q. Well, it's rather amazing that all of these other studies have something wrong with theirs but yours don't. Don't you find that strange?
A. This here if you look at their O2 sat it says 97.67 percent. First of all, let me measure that in O2 sat at that level. Secondly, it's with a the blood pressure of 85 over 54. Sat probes don't tend to pick up that carefully at those levels. There's a lot of inherent issues with the study. The other pieces they used a Portapres measuring device that was -- if you look at the company it was not designed to be used for changing positions but rather to be used in an ICU setting or a proned -- on a bed setting so that you can measure changes over time, not changes in position from standing to supine to prone. It throws off the way the machine reads on your finger. So they used the equipment wrong. So that's a criticism of this study.
Q. These guys at the University of Vienna

196

in your opinion don't know what they're doing?
A. I think it's actually fairly common across the board that there were inherent issues beyond my own opinion. It's in the community of people who do research in this field that there were flaws in this study.
Q. It also show a very large decrease actually 37.4 percent of cardiac output; right?
A. That was measured based on their blood pressure. Correct.
Q. Yes. Okay. That's significant, that's clinically significant?
A. The number is significant. The measurement is flawed.
Q. Right. I understand your position. But assuming that the measurement was accurate, 37.4 percent in cardiac output is very clinically significant; correct?
A. It would be potentially notable in blood pressure changes if was the decrease in output suddenly, sure.
Q. A decrease of mean forced vital capacity of 39.6 percent is very clinically significant, isn't it?

197

A. It could have clinical implications at that level that would you note in measuring oxygen saturation or CO2.
MR. EDWARDS: Bobbie, would you pull out Exhibit 15 on the list.
MR. GASS: Is this Exhibit 15 or is this your No. 15?
MR. EDWARDS: My Number 15 the article is entitled The cardiopulmonary effects of physical restraint in subjects with chronic obstructive pulmonary disease from the Clinical Forensic Medicine.
MR. GASS: And is this now going to become Exhibit 22.
THE REPORTER: It is Exhibit 22.
(WHEREUPON, THE ABOVE-MENTIONED DOCUMENT WAS MARKED AS EXHIBIT NO. 22 TO THE TESTIMONY OF THE WITNESS AND ATTACHED HERETO.)
BY MR. EDWARDS:
Q. Have you seen this article, Doctor?
A. I have. Yes.
Q. And there were eight subjects with COPD placed in the prone, and then the prone restraint position to determine whether physical restraint

198

was harmful to individuals with pulmonary conditions?
A. Right.
Q. Is that the purpose of that?
A. Eight subjects, yes recruited with COPD.
Q. And of those eight subjects, three could not tolerate the prone position with risk restraints due to a clinical deterioration in symptoms; is that correct?
A. If I remember correctly, a 67-year-old, a 70-year-old, and a 69-year-old were unable to tolerate that position.
Q. So the finding of Dr. Meredith and others -- and let's see. Their finding was that for people with a lung condition, specifically COPD, the prone position was harmful?
A. For elderly people with significant COPD the prone position did have some impact on them. Yes.
Q. Clinically significant impact; right?
A. For these three individuals they found some findings on them.
Q. You I believe in some of your opinions have referred to a study done by Dr. Shimizu,

199

S-H-I-M-I-Z-U. Am I correct on that?
A. That I referred to that?
Q. I thought you had. I could be incorrect.
A. I think that may have been one of the other experts in this case may have referred to it and I took a look at it.
Q. Dr. Shimizu --
MR. EDWARDS: Did I give you the number on that, Bobbie?
THE REPORTER: No, you didn't.
MR. EDWARDS: Number 14.
(WHEREUPON, THE ABOVE-MENTIONED DOCUMENT WAS MARKED AS EXHIBIT NO. 23 TO THE TESTIMONY OF THE WITNESS AND IS ATTACHED HERETO.)
BY MR. EDWARDS:
Q. Got it, Doctor?
A. I do. Thank you.
Q. Have you ever seen this article?
A. I have seen this article before. Yeah.
Q. And Dr. Shimuzu and et al, in 2014 concluded that prone positioning induces significant changes in systolic and diastolic function as well as dyssynchrony; right?

200

A. They do write that --
Q. Cardiac changes from switching from the supine to prone position?
A. They do write that in their conclusions.
Q. Do you disagree with that?
A. Well, I think that they're looking at several different groups there. So in the group that sort of represented our case here there was no significant changes. But in other groups that had history of heart attacks or ischemic heart disease without myocardial infarction they did find some changes.
Q. Well, actually at Page 3 of 3 they indicate in all 90 patients in the study heart rate increased and stroke volume index decreased with prone positioning resulting in a decrease of cardiac index, cardiac function was switching supine to prone position. So it says that all 90 patients there was a change in the heart rate cardiac index?
A. The heart rate they said in Group A went from 78 beats per minute to 76 beats per minute. So that would be a change, certainly noting clinically significance. And --

201

Q. All these articles we've been talking about are negative on placing patients in a prone position; is that correct?
A. Again, this is -- if you're referring to people with history of heart attacks and ischemic heart disease, they have some changes they note. The normal group really does not have anything that would be clinically significant that would be negative towards doing it. But they do note that there are changes that you can measure in these positions. But they don't talk about the physiologic impacts of them.
Q. Well, actually this Shimuzu study just says prone positioning induces significant changes in systolic and diastolic function as well as dyssynchrony. What is dyssynchrony?
A. The heart -- the beating of the heart left to right.
Q. Okay. Then that doesn't qualify the study group, does it? They said this happens in all 90 that they studied.
A. But the numbers that they report showing their changes are comparing all patients -- well, they compare supine to prone. The numbers are

certainly not anything clinically significant. The heart rate change of six beats is hardly measurable. Stroke volume indexes between 30 and 35 are normal. So there's nothing there that would be irregular. There's difference you can measure them, but nothing that was clinically significant in the normal population. So they're noting the changes. They're reporting that. But it doesn't show any clinical significance for the population in these normal groups. It's just telling you patients who have other medical histories may have some changes. Even there those are not dramatic, but they're notable. And that's what they're doing.

Q. Well, it doesn't do much -- add much to medical knowledge to report insignificant changes from one position to another, does it?

A. I think it adds a lot of data. Any study that shows changes or no changes if done scientifically well is helpful for the medical community.

Q. Okay. And in that regard all of these articles that we've been reviewing all note adverse changes whether clinically significant or not as a result of the prone position; right?

A. That's what I'm saying I don't agree with that. You know, heart rate from 70 to 76, one could argue the supine position lowers your heart rate. Again, those types of number changes though statistically significant in reporting don't mean that there's actually some clinical significance behind it. And that is an adverse effect of the position.

Q. Doctor, let's switch gears once again.

A. Do you mind if I ask a quick question just for my own planning.

Q. All right.

A. How long do you anticipate this going on just because I blocked out the four hours you paid me for, but I wanted to make sure I let people know for things I'm pushing off. Just an idea, not a push.

Q. I think that we are moving towards a conclusion. Another 45 minutes maybe.

A. Okay.

Q. Of course it depends on your cohorts there.

A. Sure.

Q. You have previously testified that only approximately 10 percent of individuals suffering from excited delirium will die; is that correct?

A. Yeah. Ten, eleven percent. It's in that range, yes.

Q. And you wrote in excited delirium syndrome etiology identification and treatment and current practice in forensic medicine. Was that last year that you wrote that?

A. To be honest I'd have to look at the reference to determine. I think it was a little longer than that. It may have been a few years.

Q. Can you see this? Is this it?

A. A textbook. I thought you were referring to a binded book. But that still may have been a little longer. It may have been published last year.

Q. Okay. So you were contributed. It says Gary Vilke and Jason Payne-James wrote on excited delirium syndrome etiology identification and treatment. That was you?

A. That's fair, yes.

Q. Okay. And you relied upon a study by Dr. Stratton in 2001 entitled Factors Associated With Sudden Death of Individuals Requiring Restraint for Excited Delirium. Is that correct?

A. That would probably be one of the references in there, sure.

MR. EDWARDS: Let me get a number on that. Bobbie, this is 43.

(WHEREUPON, THE ABOVE-MENTIONED DOCUMENT WAS MARKED AS EXHIBIT NO. 24 TO THE TESTIMONY OF THE WITNESS AND ATTACHED HERETO.)

MR. GASS: Would you somebody give us the exhibit number and the title slowly please.

THE WITNESS: Exhibit 24 Factors Associated with Sudden Death of Individuals Requiring Restraint for Excited Delirium. Lead author is Samuel Stratton. And it appears to be in the American Journal of Emergency Medicine, Volume 19, May 2001.

MR. GASS: Thank you, Doctor.

THE WITNESS: You're welcome.

BY MR. EDWARDS:

Q. Doctor, so that study conducted in LA County involved people in police custody who had been -- who were in a excited delirium state and required hobble restraint; is that correct?

A. That sounds correct. I'm about to look at the details. But they were restrained by police to be transported by paramedics.

Q. They were in hogtie restraint; right?

A. I'm looking to see if all of them were. I know some of them were.

Q. Well, at Page 188 in Dr. Stratton's paper he says all -- well, no, I'll correct myself. There were 214 individuals in Dr. Stratton's study in Los Angeles County; right?

A. I'm reading 216 restrained excited delirium victims encountered during the study, all had been in restrained some form of hobble restraint, either loosely (TARP) or tightly (hogtied). The TARP technique was used almost exclusively after 1996.

Q. Okay. Of that population of 216, 18 individuals died?

A. There were 18 deaths. I think 18 deaths were in cardiac arrest while being transported.

Q. Okay. And those 18 deaths are all people restrained in the hogtie for excited delirium. And that's at 188; right?

A. It was surely the hobble restraint. So

hogtie implies being close to the hands. It could be loose where there's more movement with the legs. But the legs were bound and attached to some level.

Q. Okay. So of the 18 people who died in Dr. Stratton's study in LA County, all were similarly restrained to the restraint used on Troy Goode?

A. It appears they were of similar positioning, sure.

Q. And these were all people described as being in a state of excited delirium as that which you have attributed to Mr. Goode's state; correct?

A. That is the physiologic presentation of these as well as Mr. Goode. Yes.

Q. Okay. So we got 216 people in LA County being studied by Dr. Stratton in regards to police restraints. And 18 of those people died. Am I right so far?

A. I can't determine the details. I think 18 went into cardiac arrest and died during transport. I'm not exactly sure if they actually followed everybody through hospitalization. But of the ones that happened these happened during

transport and died.

Q. And all sudden death victims, the 18 in the series had been hobble restrained; correct?

A. In some form of hobble restraint, yes. Uh-huh (affirmative response).

Q. That's at 188. So that's LA County. And the Stratton study upon which you referenced in your publication on excited delirium syndrome etiology identification and treatment; right?

A. I believe it's referenced in there. I didn't double check. But I believe it's in there if you told me.

Q. Okay. Two years ago, two years ago, you participated in a study on police restraints in Canada; is that correct?

A. I certainly was participating in a prone restraint study up there. I'm not sure which one you're referring to. But I know I've worked with the Canadians on some of their restraints.

Q. Restraint in police use of force events. Hall, et al, 2015.

A. Yes. That sounds familiar.

Q. Okay. I'll get you a copy of it.

MR. EDWARDS: Bobbie, this is number 44.

(WHEREUPON, THE ABOVE-MENTIONED DOCUMENT WAS MARKED AS EXHIBIT NO. 25 TO THE TESTIMONY OF THE WITNESS AND IS ATTACHED HERETO.)

BY MR. EDWARDS:

Q. Now this study was published in the Journal of Forensic and Legal Medicine. Is that correct, Doctor?

A. That is correct.

Q. Okay. And you're listed as one of the authors; right?

A. I am.

Q. Okay. So in this study in Canada, you had more than double the amount of individuals being studied than Dr. Stratton had had in LA County, California; right?

A. I mean, which part of this study are you talking about total consecutive use of force events and how many were in prone and not prone positions?

Q. Fair enough. I'll rephrase it. In the Canadian study you found that 499 individuals had three or more features of excited delirium?

A. Yes. Correct.

Q. And 86 individuals had six or more

features of excited delirium?
A. I think that is correct as well.
Q. And so out of this population of almost 600 people, you had one death; is that correct?
A. There was one death in this population. Correct.
Q. And the one death in this population was due to cocaine toxicity; correct?
A. That sounds familiar. Yes.
Q. And the one individual who died from cocaine toxicity was hyperthermic; correct?
A. I'd have to look at the details. I know he was not prone. But I'd have to check if he was hyperthermic. Yes. He had hyperthermia as well.
Q. So I think I was wrong on my number. I think that the group that you were studying was closer to 500 than 600. And so out of the 500 there was one death -- and these were all people in Canadian police custody; right?
A. Correct.
Q. Okay. And so out of the approximate 500 people you had one death that was due to cocaine toxicity and hyperthermia; right?
A. That's correct.

Q. Now, Doctor, tell the jury how many people in the Canadian study were hogtied?
A. I'd have to read through this. If you can point me in the direction it's in there if you know it, great. But I can't recall off the top of my head if it's even reported in there.
Q. Doctor, you know that zero of the Canadians were hogtied, none; correct?
A. Well, that's what I'm looking for. I don't remember specifically. So to say I know is sort of unfair. I'm not recalling, so I'm reading through it.
Q. Page 34, Section 5.5.
A. It says there, yes. Unlike other cohorts no individual in our cohort had ankle and/or leg restraints connected in a hogtied fashion (also known as the position of maximal restraint).
Q. And the reason that is is the entire country of Canada bands hogtying by police; correct?
A. I don't know if that's really the case. I don't know their policies up there.
Q. Well, you went up to study the police

practices; right?
A. I actually worked with the authors to evaluate the data, not necessarily to study the police practices aspect of it.
Q. So what we have in contrast is we have a study by Dr. Stratton in Los Angeles upon which you rely in your writings that dealt with 214 people, and of those 18 died and everyone was hogtied; correct?
A. They were hobbled or hogtied.
Q. Yes. And then you contrast that to Canada in the study in which you participated for the Canadian police that dealt with a much larger population about 500, and there were no deaths; correct?
A. If you're talking about -- the 500 subjects are with three signs of excited delirium or more. Typically you would define it the tighter definition. You're really looking for excited delirium of six or more features. And that's a smaller population, but it looks like 86 patients as well of none of which were hobbled or hogtied like you said.
Q. So we've got hogtying in the U.S. that

results in deaths; right? And we've got Canada which doesn't allow hogtying, and we've got no deaths in the study; right?
A. Well, again, I don't know if Canada does not allow it. You put that into the question there. So I can't agree with the whole statement. But there were only one death in the population of Canada out of the 86 patients with six or more features. And as you pointed out the Stratton study showed that there were the 18 deaths in the population who had the restraints placed.
Q. This were no deaths in Canada that were caused by hogtie; correct?
A. In this study that would be correct.
Q. So how do you explain the fact that in the U.S. where police hogtie and we got 18 deaths among if you say 86 people, and in Canada where we got 500 and we don't have any deaths, how do you explain that?
A. Certainly it could be different types of evaluations of the data, types of drugs being used, populations being studied. Those are all things that happen with epidemiologic studies trying to compare one cohort to another. So just

214

to take one study and compare it to another study and say all things are equal, scientifically you can't do that. But it's something worth taking a closer look at at some point if you can get a study population to compare with.

Q. Well, Doctor, the Canadian study is one which you designed and participated in?

A. I participated in it. I didn't actually design the methodology. I helped the Canadians evaluate their data once they collected it through the police department.

Q. It was your study at least in part; right?

A. I just said that. Yes.

Q. And Dr. Stratton who did the LA study was somebody you whom you put faith because you accepted his numbers?

A. I report what he reported, sure.

Q. So we got 18 deaths in hogtying in LA County, and none in Canada in a much larger population. And my question is how do you -- you know what Occam's razor is?

A. I do.

Q. What's the Occam's razor answer to this

215

question?

A. That the excited delirium syndrome killed the people at both sites because that's the only common thing that's going on with them. There's no hogtie up there and somebody died. There's 18 down here and all of them had excited delirium syndrome, not all of them had a hogtie.

Q. Wrong. Down here in Dr. Stratton's study everyone was hogtied?

A. Correct. You asked me the Occam's razor which means you come up with a single diagnosis that covers for all the findings. The only thing that was across the board in all 19 deaths was the fact that they had a state of excited delirium syndrome. Eighteen of them happen to be hogtied. But the only thing that covers all 19 is the excited delirium presentation.

Q. It was cocaine in Canada that caused the death; right?

A. Cocaine was involved in the excited delirium etiology in that one case, sure.

Q. And cocaine is by far in a way the precipitant of the excited delirium that you say results in death; correct?

216

A. Cocaine is the more common drug along with methamphetamine that causes excited delirium.

Q. It's a stimulant, it's a highly potent stimulant; correct?

A. Cocaine is, yes.

Q. LSD is not; correct?

A. I think we went through that. It has some stimulating qualities. But it's classified as a hallucinogen.

Q. But your information is all anecdotal because you have not studied LSD?

A. I have studied about LSD as part of my training in emergency medicine. But I have not studied LSD as an individual topic as part of my research.

Q. So let me ask you a different question. Since the rate -- how many characteristics of excited delirium did Troy Goode have in your opinion?

A. He had I believe at least six of them. He had violent behavior. He had tolerance to pain, consistent physical activity, not responding to police presence. He was defined as having human strength, rapid breathing, did not tire

217

despite physical activity. He was sweating. He had a etiology and he was delusional. So all those things would be well over that six mark.

Q. Okay. So in the Canadian study in which you participated there were 86 persons with six or more markers or characteristics; right?

A. Correct.

Q. As with Troy Goode; right?

A. Correct.

Q. So in taking Dr. Stratton's percentage that you relied upon 10 percent of 86 or between eight and nine people statistically should have died?

A. Correct.

Q. From excited delirium?

A. If you used Sam Stratton's numbers extrapolate across that population, that should be eight or nine. Correct.

Q. Well, you did. You used his numbers; right?

A. I reported his numbers as the time the epidemiologic best numbers that we could tell for patients exhibiting those signs. You know, 11 percent went into cardiac arrest based on his

data.
Q. So let's take a break now. I'll get my notes together and maybe we can wrap up, okay.
A. Sounds great. Thank you.
THE VIDEOGRAPHER: Time off the record is 1:02 p.m. This ends media number three.
(WHEREUPON, A BREAK WAS TAKEN AND THE PROCEEDINGS CONTINUED AS FOLLOWS:)
THE VIDEOGRAPHER: Time back on the record is 1:09 p.m. This begins media number found. Counsel, you may proceed.
MR. EDWARDS: Bobbie, would you pull our number 32, please.
(WHEREUPON, THE ABOVE-MENTIONED DOCUMENT WAS MARKED AS EXHIBIT NO. 26 TO THE TESTIMONY OF THE WITNESS AND ATTACHED HERETO.)
THE WITNESS: For those on the phone it looks like it's the National Association of State EMS Officials, National Model EMS Clinical Guidelines, Exhibit 26.
BY MR. EDWARDS:
Q. Are you a member of that association?
A. National Association of State EMS Officials, I am not.

Q. You're familiar with these Model EMS guidelines?
A. I am not familiar with these either. No.
Q. Well, turn over to Page 46. And if you will please take a minute and read to yourself the patient safety considerations.
A. Okay.
Q. Are there -- there are one through twelve points in this section. Are there any of these with which you disagree?
A. Disagree versus style I think is your question. I don't disagree with any of them. But I don't think that all of them are absolute. It says patient should never be transported while hobbled, restrained, or restrained in a prone position with hands and feet behind the back. That's their opinion. I think that there are circumstances where that's sometimes the safest way to transport somebody.
And so I'm not a big fan of the never aspect of a recommendation or guideline. The absolutes always make me uncomfortable where I would tend to disagree with that type of a thing.

Otherwise, you know, patients who have received anti-psychotic medication as a chemical restraint must be monitored closely for the potential development of. You can't measure somebody for ataxia because they're restrained. Ataxia is an ambulatory issue. So some of these things are sort of -- sort of odd to be in a thing.
But in and of itself it's a reasonable set of things to think about for taking care of somebody who is agitated. But, again, I'm not a fan of the never and always type of comments.
Q. Well, the reason that -- the reason that they have here never transport while hobbled or hogtied or restrained in a prone position is a patient safety consideration; right?
A. It is intended to be a safety consideration but often times will create more problems trying to switch somebody from a hogtie position to a non-hogtie position from a scene safety as well as an individual safety of the patient perspective.
Q. Well, what is it that you say prevented Troy Goode from being taken off his stomach and put on his side or restrained in four point

restraints on the stretcher, what prevented that?
A. They had been trying to put him on his sides a number of times earlier by the paramedic reports and he kept wobbling back and forth and spitting and twisting so that he wouldn't stay on his side. At the hospital the degree of agitation and behavior would potentially create more harm to try to switch him out than to just give some sedation, calm him down, and then have a more compliant less resistive person to put in that position when decreasing the risk of harm to the patient, and two it decrease the harm to the individual trying to restrain him.
Q. You know what every authority we have says don't leave somebody in a prone position, yet you may need to put them down in the prone to control them but then get them out; isn't that correct?
A. Every single piece, I don't believe that's the case.
Q. Did you read Sergeant Price's testimony his report where he said Troy was trying to turn on his side and he, Sergeant Price, held him down on his stomach? Did you read that?

A. I don't recall that specifically. I do recall him trying to turn him on his side and he kept spitting back and forth.

MR. HUSKISON: This is Berk Huskison and I object to the form of that question.

BY MR. EDWARDS:

Q. You didn't read that Sergeant Price prevented Troy from turning on his side; yes or no?

A. I may have read that. I don't recall the specifics of his commentary on that.

Q. Do you know Sergeant Price's size?

A. I would have to look that up. I don't know off the top of my head.

Q. Six foot five, 285 pounds, does that sound like Sergeant Price?

A. I still would have to look that up.

Q. Okay. Orange County EMS policy and procedure for patient restraint -- Orange County is what, is that just above you, it's between LA and San Diego, isn't it?

A. That is correct.

Q. And their EMS policy for patient restraint says that a patient shall be restrained

in a supine position or on their side. Are you aware of that?

A. I am not.

Q. That would be for patient safety, wouldn't it?

A. The intent of their protocol I'm not sure why they chose that.

Q. Well, all these protocols -- we can agree that the EMS should not be placed in a position of peril; right?

A. The EMS should not be placed in a position of peril?

Q. Yes. Right. You don't want the EMS to put themselves in a position of peril; right?

A. We want them to be safe, sure.

Q. So once the patient no longer represents a threat, then you turn your attention to the well being of the patient; correct?

A. That's reasonable, sure.

Q. What is a recovery position?

A. The recovery position has been defined by some as taking somebody in a hobble position and rolling them on their side.

Q. You testified to that effect -- did you

testify in the Lee versus City of El Monte case?

A. That sounds familiar somewhat. I don't know if it's trial or deposition testimony. I can't recall specifically.

Q. Have you ever testified in court?

A. I have. Yes.

Q. How many times?

A. Probably about 30 to 40 times maybe.

Q. I'm not talking about -- I'm not talking depositions. I'm talking about going into the courtroom?

A. Yes. That's what I'm referring to I believe.

Q. Is that what you're talking?

A. Yes.

Q. So 30 to 40 times you have gone into courtrooms throughout the United States in defense of police departments in hogtying cases?

A. No.

Q. In fairness you said some of the cases in which you participated in has been medical negligent cases?

A. Correct.

Q. And in those cases you testified on

behalf of the hospital?

A. Or the plaintiff, depending on the case.

Q. Give us the name of a plaintiff where you testified on behalf of?

A. I didn't understand -- you muffled your voice the last bit.

Q. Give us a reference to a case where you testified on behalf of a plaintiff?

A. In deposition or trial or both?

Q. Either.

A. I'd have to pull my Rule 26 report. It should be in the back there. I don't have the actual cases listed in front of me.

Q. Would it have been within the past four years?

A. I believe there's some cases in which I've given testimony on a plaintiff's behalf in the last four years.

Q. Okay. Were you the director of the San Diego County EMS for 2003 to 2006?

A. That's correct.

Q. And as the director of the EMS would you have had the responsibility, among other things, of approving all protocols for EMS?

A. That would be part of my role. Yes.
Q. And so the protocols for the San Diego County EMS in effect for 2003 to 2006 would have been approved by you?
A. At some point, yes. They have a rotating approval. So if the previous medical director put something through and they're not in cycle to be reviewed, it could be a period and then at some point you generally reviewed them.
Q. In other words, you put your stamp of approval on whatever was put down as a protocol to be followed by EMS?
A. That's what I'm getting at, they rotate through certain intervals for review. So if it had my stamp on it that would be part of my review.
Q. What is a never event?
A. A never event at least as I understand it is a list of things put out -- I can't remember if it's CMS or one of the regulatory bodies about things that should never happen. Retain foreign objects I think it falls in that category. There's a list of things that fall into that, that's how they define it.

Q. One never event promulgated by CMS is a patient should never die in restraints; correct?
A. That I'd have to look. It sounds like a reasonable event. But I don't know if that's the reality or not in their list.
THE WITNESS: This is 50, Bobbie. Pull that out please.
(WHEREUPON, THE ABOVE-MENTIONED DOCUMENT WAS MARKED AS EXHIBIT NO. 27 TO THE TESTIMONY OF THE WITNESS AND IS ATTACHED HERETO.)
BY MR. EDWARDS:
Q. Doctor, under Table A, Environment Events, death and disability associated with use of restraints within facility. You see that?
A. I'm working on it.
MR. GASS: Tim, could you please give us the title of what you put in front of the Doctor.
THE WITNESS: I'll say it again. It probably comes out clearer for me. It's the CMS Center for Medicare and Medicaid Services CMS, Center for Medicaid and State Operations July 31, 2008. Really it says for Center for Medicaid and State operations, a letter. It says Dear State Medicaid Director is the title of it. It's got a

number SMDL No. 08-004.
MR. GASS: Thank you, Doctor.
THE WITNESS: It's about five pages.
BY MR. EDWARDS:
Q. So a never event is a patient -- a death related to a patient in restraints at the hospital?
A. I'm looking for that specifically. There you go.
Q. It's the environmental section, the last one.
A. You're right. It says death/disability associated with use of restraints within a facility.
Q. Now, Doctor, I'm trying to sum up here. The studies for which you rely to conclude that Troy Goode did not die of any asphyxial event were all of those studies for which you have been involved; is that correct?
A. And there are other studies that I also refer to that I was not involved with that I reviewed.
Q. In all of the studies in which you were involved, Troy Goode would not have qualified for

participation; correct?
A. That's not correct, unless you're referring to him not being -- I mean, if you're talking about as a person who came off the streets and wanted to participate in a study not on LSD, and acting normal, he could qualify. If you're talking about somebody on the side of the road going crazy with LSD in his system, then no he would not have been able to participate.
Q. That's what I'm asking you. That's what we're dealing with, isn't it, this under the influence of LSD?
A. Well, I didn't understand if you were talking about his physiology and background with asthma or if you're talking about the LSD components, that's why I wanted to clarify.
Q. With LSD influence or cocaine influence, or anything else that somebody might use as a recreational drug, those people would not have been proper subjects for your studies?
A. Correct. We could not use somebody who is under the influence at the time of the research.
Q. And therefore your studies did not

address people who were in Troy Goode's state at the time of his restraint and ultimately death?

A. They do not involve subjects in the state of excited delirium syndrome or under the influence of LSD. That part is correct.

Q. All right, sir. That's also true of marijuana? Well, I think we said earlier your opinion forthrightly was that marijuana didn't play any part in Mr. Goode's demise?

A. Right. I plan to make no opinion on that.

Q. Well, you've testified in other cases that marijuana doesn't cause death, haven't you?

A. I tend to leave that alone. There are some data out there that people think that marijuana increase risk of sudden death. I don't have enough knowledge based in that area to opine. So I just defer any opinion to somebody else who may want to.

Q. Is marijuana legal in your state for any purposes?

A. Is it legal? It is legal for some purposes, yes.

Q. And that's true in 28 other states;

correct?

A. I haven't done the recent math, but it's certainly getting to that range.

Q. Okay. And so, finally, what we have is a study by Dr. Stratton, et al, in LA where 18 people in excited delirium and hobble restrained died out of a population of 200, 215, thereabouts; correct?

A. That's about right. Yes.

Q. And in contrast your stay in Canada in a population of almost 500, no person died, no person died except one for cocaine toxicity; right?

A. If your definition of the 500 as three excited delirium syndrome characteristics or greater, than yes. If you're looking at a more refined population, it's a smaller group.

Q. That's fine. If we use the 86 under Dr. Stratton's study, eight or nine should have died; right?

A. If the numbers -- if the populations were similar, the answer would be that would make sense. Yes.

Q. But the only difference between those 86

in Dr. Stratton's studies were nobody in Canada was hogtied?

A. That's not the necessarily only difference. Some people in Canada didn't have drugs in their system. There were some potential epidemiologic characteristic differences. But from a physical restraint component, there was no nobody hobbled or hogtied up in Canada.

MR. EDWARDS: That's all I have. Thank you, Doctor.

THE WITNESS: Thank you.

MR. PHILLIPS: Does anybody on the phone haves in for Dr. Vilke?

MR. MACAW: No questions for SEP.

MR. UPCHURCH: No questions.

EXAMINATION

BY MR. HUSKISON:

Q. This is Berk Huskison on behalf of Southaven, I just have one quick question. Doctor, looking at your expert report you've got several findings, but one of those findings is the one I just want to ask you about. You conclude that the prone maximal restraint positioning did not cause the sudden cardiac arrest and death in

Mr. Goode; is that correct? Do you remember that?

A. I do. Yes.

Q. And is that opinion to a reasonable degree of medical certainty?

A. Yes, it is.

MR. HUSKISON: Thank you. That's all I have.

FURTHER EXAMINATION

BY MR. EDWARDS:

Q. Doctor, it occurs --

MR. EDWARDS: I'm sorry, did I cut anybody off? No.

BY MR. EDWARDS:

Q. I think that it would be -- you did a report and a supplemental report; right?

A. Correct.

MR. EDWARDS: Bobbie, let's mark both of those as separate exhibits, please.

(WHEREUPON, THE ABOVE-MENTIONED DOCUMENT WAS MARKED AS EXHIBIT NO. 28 & 29 TO THE TESTIMONY OF THE WITNESS AND IS ATTACHED HERETO.)

BY MR. EDWARDS:

Q. Doctor, in one of those, I don't remember whether it was the original or the

supplemental, you gave an unsupported opinion that there was no requirement of one-on-one observation of Mr. Goode. Do you recall that?

A. Sounds familiar.

Q. What's the basis for that conclusion?

A. That agitated individuals in an emergency department don't require one-to-one observation. They require to be monitored and re-evaluated and reassessed. But you don't have to have requirement of somebody sitting in the room constantly watching that person.

Q. No, you don't. You can have video, can't you?

A. That is another option to use if you want to, sure.

Q. Yeah. And you can also have remote monitoring of the ECG and the pulse oximetry; right? You can have that?

A. Telemetry monitoring is a piece of equipment that is available, sure.

Q. Right. Or you can have somebody who was not actually in the room but had a visual on the patient?

A. If you're calling it a one-on-one, they

have to have undivided attention. But that's another way of doing it, sure.

Q. So when you say your opinion that he didn't need one-on-one observation by a trained medical person is what you're referring to; right?

A. Correct.

Q. You're not saying that he didn't need to -- his pulse oximetry didn't need to be monitored, are you?

A. I'm saying that he needed to be monitored visually, and that when with either a change in status or when he's more calm to then be monitored with the more traditional electronic monitoring equipment.

Q. Okay. So your opinion in your report was limited to the one-on-one visual by a trained medical person?

A. Somebody in the room is how most people define on one-on-one, like an ICU level nursing immediately there.

Q. Okay. And you've looked at the CMS guidelines on that, have you?

A. I have not looked at the CMS guidelines. I was referring to practice in a typical emergency

department.

Q. Well, one second please. Doctor, I do have one other question, it just occurred to me, I'm sorry. There's so much material here I think you can understand it's difficult to cover all the basis. But I have one last thing for you. After sedation, and I'm talking about in your experience since you refer to that a great deal, in your hospital people in the excited delirium state who have been sedated never died; is that correct?

A. No. People in excited delirium have died.

Q. I am quoting from your testimony in the case of Lee versus Nashville Metropolitan Government where you said you have not had any patients in excited delirium die after being sedated; true or not?

A. I have personally had somebody die in the process of trying to get them sedated but not once they become sedate, no. That would be a true statement.

Q. Okay. So you're talking about somebody dying while you're in the process of administering the sedative?

A. Correct. Before they become sedate.

Q. But thereafter, you haven't had anyone pass away?

A. Knock on wood, yeah. Correct.

Q. Have you had any deaths due to prone positioning in your hospital?

A. To prone positioning at my hospital? I don't know the totality of cases at my hospital. So I guess it's possible that something have happened that somebody died while being in a prone position, OR or something like that. But I don't know the answer to that.

Q. Let me ask it a different way. I said due to prone positioning. Have you as -- have you had a patient that died while in a prone position in your care?

A. I don't think so. I mean, certainly not an agitated or sedated person that way. I'm just trying to think of anybody I had to be on their stomach for any particular procedure in the ED that might have died. And I can't off the top of my head come up with something. The best answer I can come up with is I don't recall any. No.

Q. All right. Have you ever had the

occasion to report to CMS on death of a patient in restraints?

A. Have I personally? No. Not -- again, not that I recall from my career that happening, no. Has any been reported from our hospital, it's possible. But I'm not aware of it.

Q. Are you aware of the requirement under the Code of Federal Regulations that death in restraints be reported to CMS?

A. It's I believe on one of the lists of the things that they have to have to be reported. I'm familiar with the list. I think that is on there.

Q. Whether they are in law enforcement restraints or hospital restraints it has to be reported; correct?

A. That's what where I think the language does not specify. So I would defer to regulatory to make that decision if that needs to be reported or not.

Q. Have you ever received any CMS, you or your hospital received any CMS warning letters about operational difficulties?

A. I have not received any letters from

CMS. I would not necessarily know what my hospital has received because all those types of things are determined usually through regulatory and administration. So I am not thinking off the top of my head of anything that I'm aware of. Could there have been an e-mail that came out from a chief medical officer at some point in the past about something, it's certainly possible. But I'm not recalling anything off the top of my head.

MR. EDWARDS: Thank you, Doctor.

THE WITNESS: Thank you.

THE VIDEOGRAPHER: We're going off the record. This concludes the videotaped deposition media number four. The time is 1:37 p.m.

C E R T I F I C A T E

STATE OF TENNESSEE)
)
COUNTY OF SHELBY)

I, BOBBIE HIBBLER, LCR #029, CSR, Licensed Court Reporter, in and for the State of Tennessee, do hereby certify that the above deposition was reported by me, and the transcript is a true and accurate record to the best of my knowledge, skills, and ability.

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